

**FINAL
ENVIRONMENTAL ASSESSMENT
AND DECISION NOTICE
OF THE
REINTRODUCTION OF BIGHORN SHEEP INTO
THE ELKHORN MOUNTAINS, MONTANA.**

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TABLE OF CONTENTS

TITLE	PAGE
CHAPTER I. PURPOSE AND NEED	1
A. THE PROPOSED ACTION	1
B. PURPOSE AND NEED	2
C. SCOPE OF THE PROPOSED ACTION	2
D. AGENCIES CONSULTED DURING EA PREPARATION	3
CHAPTER II. THE ALTERNATIVES AND HOW THEY WERE DEVELOPED .	5
A. GENERAL INTRODUCTION	5
B. DEVELOPMENT OF ALTERNATIVES	5
1. Introduction	5
2. Description of Internal and Public Scoping	5
3. Issues Prompting Alternative Development	5
<u>Issue 1. Activity Restrictions</u>	6
<u>Issue 2. Domestic Sheep</u>	6
4. Other Issues	6
<u>Issue 3. Competition For Forage</u>	6
<u>Issue 4. Range Condition</u>	7
<u>Issue 5. Private Land</u>	7
<u>Issue 6. Recreational Opportunities</u>	7
C. ALTERNATIVES CONSIDERED IN DETAIL	7
1. Overview	7
2. Features and Monitoring Common to All Action Alternatives	8
3. Alternative Descriptions	8
<u>Alternative A (No Action)</u>	8
<u>Alternative B (Proposed Action)</u>	9
<u>Alternative C</u>	9
D. ALTERNATIVES CONSIDERED BUT NOT GIVEN DETAILED STUDY	10
E. COMPARISON OF ALTERNATIVES WITH RESPECT TO EFFECTS	10
CHAPTER III. THE AFFECTED ENVIRONMENT	11
A. INTRODUCTION	11
B. AFFECTED ENVIRONMENT	11
1. Soil	11
2. Water	12
3. Vegetation	12
<u>Habitat Types And Range Condition</u>	12
<u>Threatened, Endangered, and Sensitive Species</u>	13

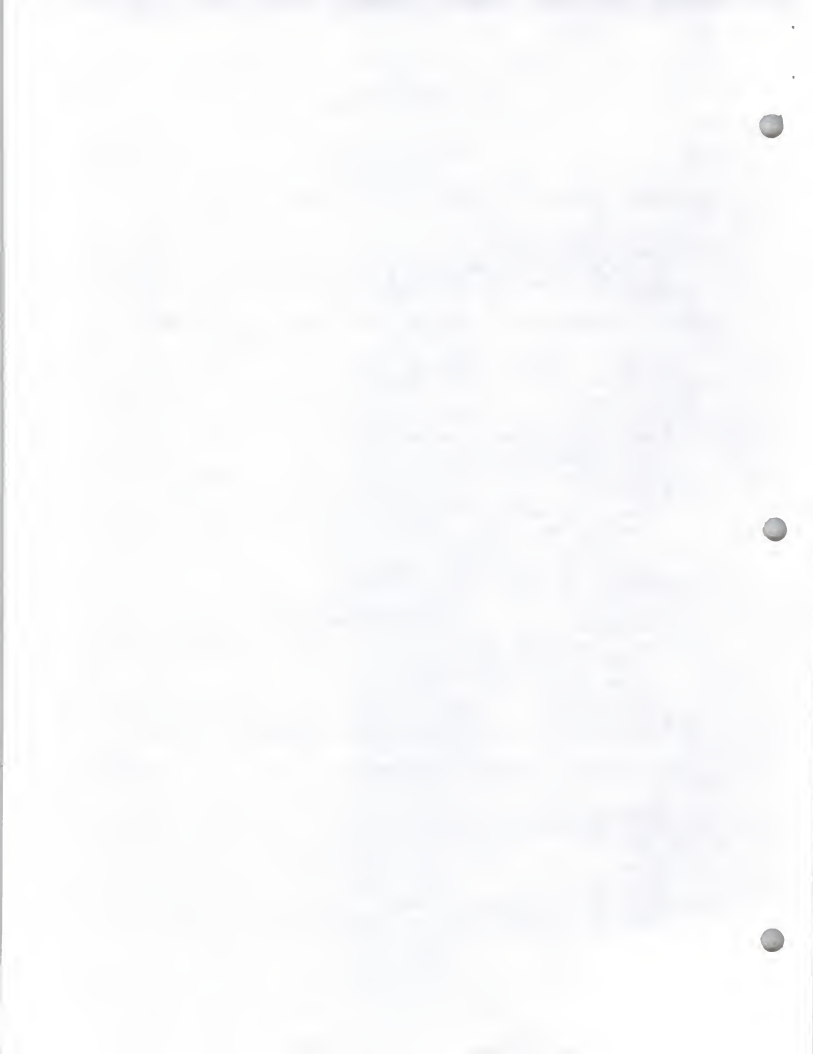
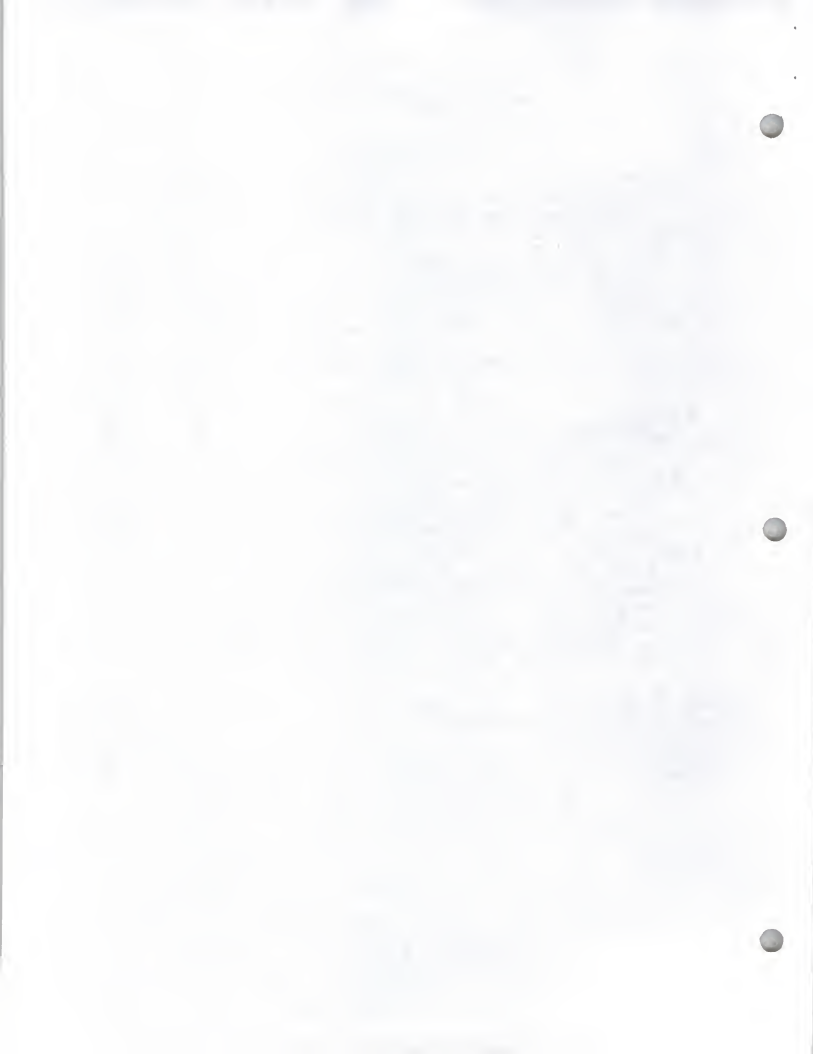


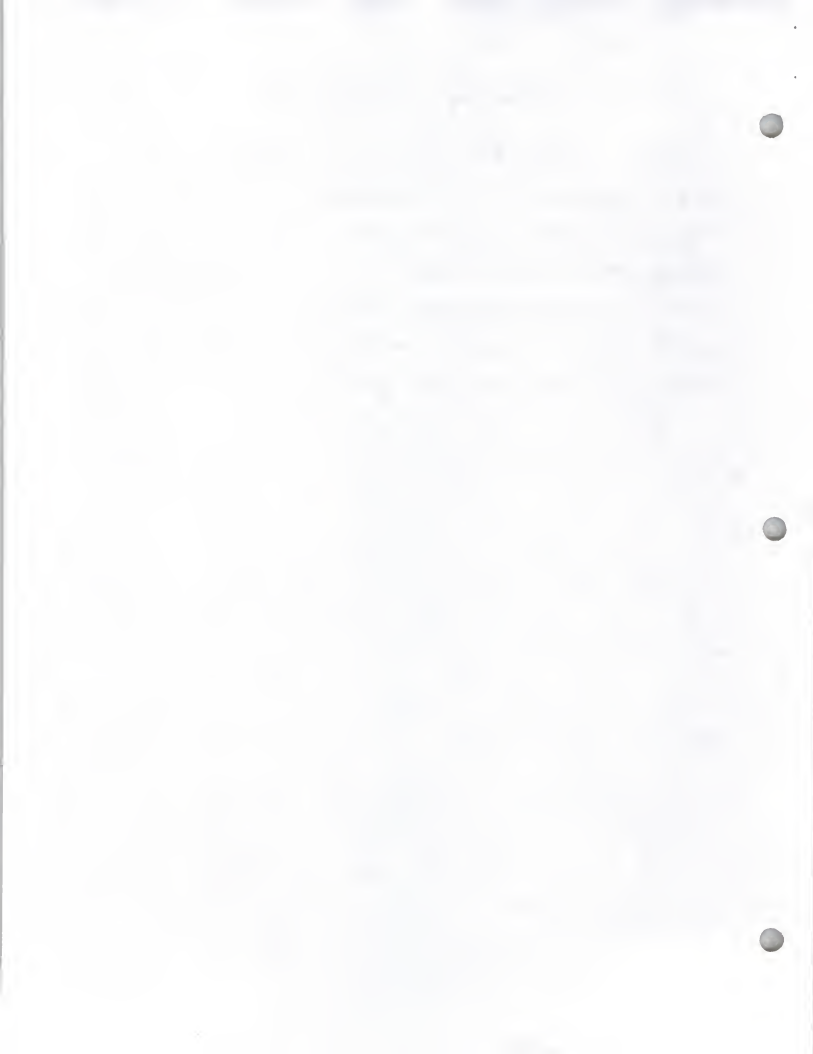
TABLE OF CONTENTS (continued)

TITLE	PAGE
4. Other Wildlife	14
<u>Big Game Resources</u>	14
<u>Threatened, Endangered, And Sensitive Species</u>	15
5. Social Issues	17
<u>Motorized Travel</u>	17
<u>Mining and Recreational Activities</u>	17
<u>Livestock Grazing</u>	17
<u>Private Land</u>	18
6. Cultural Resources	18
 CHAPTER IV. ENVIRONMENTAL CONSEQUENCES	 19
A. SOIL	19
B. WATER	19
C. VEGETATION	20
1. Range Condition	20
2. Sensitive Plant Species	20
D. OTHER WILDLIFE	21
1. Big Game Resources	21
2. Sensitive Wildlife and Fish Species	22
E. SOCIAL ISSUES	23
1. Activity Restrictions	24
2. Competition With Livestock For Forage	25
3. Domestic Sheep	25
4. Private Land	25
5. Recreational Opportunities	26
F. CUMULATIVE EFFECTS	27
 LIST OF PREPARERS	 27
LIST OF INDIVIDUALS CONSULTED	28
REFERENCES CITED	28
APPENDIX A	32
APPENDIX B	37



LIST OF FIGURES AND TABLES

NUMBER	DESCRIPTION	PAGE
Figure 1	Map of potential bighorn seasonal ranges	4
Table 1	Comparison of outcomes of 3 alternatives	10
Table 2	Occurrence of sensitive plants	13
Table 3	Occurrence of sensitive fish and wildlife	16
Table 4	Predicted impacts on sensitive plants	21
Table 5	Predicted impacts on sensitive wildlife	23



CHAPTER I. PURPOSE AND NEED

A. THE PROPOSED ACTION

The Proposed Action is for Montana Fish, Wildlife & Parks (FWP) to reintroduce Rocky Mountain bighorn sheep (*Ovis canadensis canadensis*) in the Elkhorn Mountains of south-central Montana. FWP initially identified 8 potential winter range release sites during an earlier feasibility study (Vore 1993). Of the 8 identified sites, the Indian Creek and Crow Creek release sites were selected based on habitat suitability, distance from domestic sheep operations and other potentially conflicting land uses, land ownership, overlap with existing wildlife habitats, juxtaposition to summer range, and estimated carrying capacity.

Bighorns captured from other Montana herds would be handled in a manner which will minimize stress during transport (Aune 1994). Medications will also be administered including an antibiotic to reduce the possibility of infection, ivermectine for parasite control, and a selenium supplement to reduce capture myopathy (Aune 1994). Tests for a variety of diseases and disease organisms, including *Pasteurella* spp., will be performed on blood and throat swab samples of blood and throat cultures. A vaccine may also be administered which could afford protection from certain *Pasteurella* bacteria during the first year after release (K. Aune pers. commun. 1994). Bighorns would be released as follows:

- 1) 20 to 40 bighorns would be released for two consecutive winters on the Indian Creek winter range, beginning as early as the winter of 1995-96; and
- 2) 20 to 40 bighorns would then be released for two consecutive winters on the Crow Creek winter range, beginning as early as the winter 1997-98.

Prior to release, some of the bighorns would be marked with radio transmitters to determine future movements. Bighorns would also be surveyed annually by FWP to determine population parameters.

As bighorns become established, FWP biologists would determine both when their numbers should be managed and the feasibility of public hunting and/or translocation, as approved by the FWP Commission. Establishing a sheep population numerically sufficient to support recreational hunting (i.e. limited special permits) is a primary goal of this project. The Indian Creek and Crow Creek winter ranges have been estimated to support 75 to 125 bighorns apiece (Vore 1993).



It is our intent to reintroduce populations on two winter ranges that do not exceed 250 sheep. Vegetation monitoring may indicate either a lower or higher carrying capacity than was estimated in this analysis. If a higher carrying capacity is indicated, and the analysis determines additional impacts may occur, an amendment to this EA will be initiated to determine if populations should be allowed to expand.

B. PURPOSE AND NEED

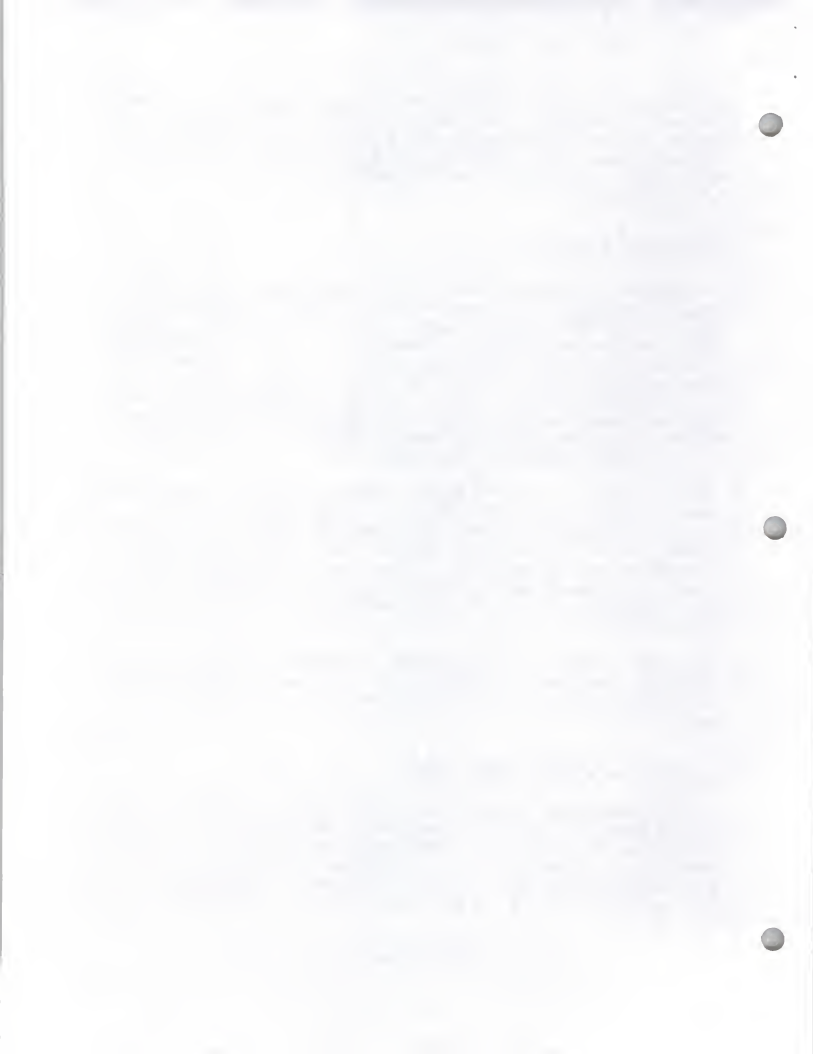
An objective of wildlife management in the Elkhorn Mountains is that, "Native fish and wildlife species are restored to their historic ranges where habitat exists (or can be restored) to sustain their populations" (USDA Forest Service 1993a), and again, "Native animals occur in historic ranges where appropriate." (USDA Forest Service 1992a:18). Goal 1 of the Memorandum of Understanding (MOU) between FWP, USFS, and BLM (USDA Forest Service 1992b:4) regarding management of the Elkhorns states that the Elkhorns will be managed to include, "...the full range of potential biological diversity..." Moreover, FWP (1986) in reference to transplanting bighorn sheep has directed that, "Each region will annually determine priority areas for transplants..."

Bighorn sheep were native to the Elkhorn Mountains and probably became extinct sometime in the early part of this century (Vore 1993). Suitable year-round habitat for bighorns remains and has been identified (Vore 1993). Currently, the nearest population of bighorns is in the Gates of the Mountains Wilderness about 35 miles to the north of any proposed reintroduction site. Between the two are Canyon Ferry Reservoir and populated agricultural lands. Bighorns are known to be poor pioneers of new areas (Geist 1971) and are unlikely to reoccupy the area by natural means.

The purpose of this project is to reintroduce bighorn sheep to the Elkhorn Mountains. The project is needed to help restore the area's natural biodiversity, and would be a public benefit by providing watchable and potentially huntable wildlife.

C. SCOPE OF THE PROPOSED ACTION

The Elkhorn Mountains occupy approximately 245,000 acres in a rough triangle between Helena, Townsend, and Boulder. About 160,000 acres is managed by the USFS encompassing most of the mountain range. This portion of the Elkhorns is found on the Jefferson District of the Deerlodge National Forest, and the Helena and Townsend Districts of the Helena National Forest. Approximately 85,000 acres is managed by the BLM. The remaining lands are a combination of private



and Department of State Lands properties. None of the above agencies have any direct management authority over private lands. All public lands are managed cooperatively by the USFS, BLM, and FWP under a Memorandum of Understanding (MOU, 1992) as the Elkhorn Cooperative Management Area (ECMA).

The proposed action is to release sheep during winter at two winter ranges, Indian Creek and Crow Creek (Figure 1). Respectively, these are about 86% and 100% public land administered by the Helena National Forest and the Bureau of Land Management. All release sites are located exclusively on public lands. The nearest private land adjacent to the Indian and Crow Creek release sites is approximately 1 and 2 miles distant, respectively.

Bighorn sheep may be released as early as the winter of 1995-96. The first two releases would be made during consecutive winters on the Indian Creek winter range. Two additional releases would be made during following winters on the Crow Creek winter range. Timing of release may be dependent on sheep availability and winter access. It is expected that all initial releases and augmentations would be completed by the year 2000.

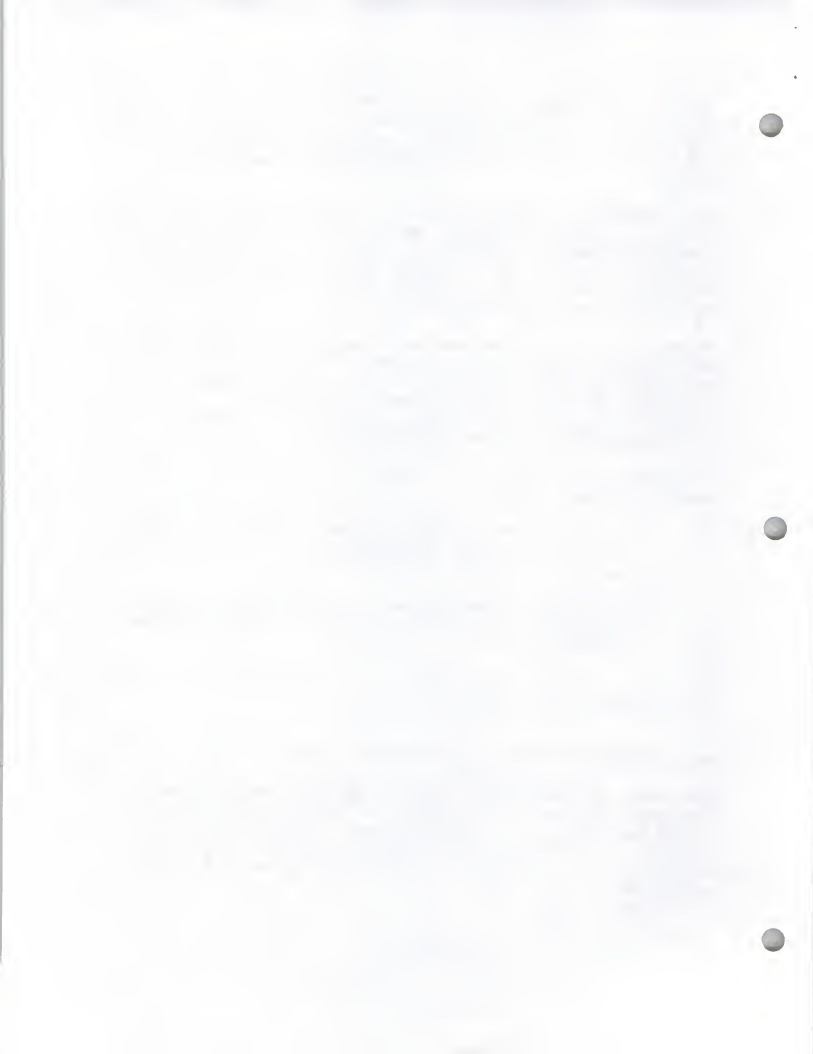
Based on the information contained in this Environmental Assessment, the Regional Supervisor will decide:

- whether to recommend the Bighorn Sheep Reintroduction Project as proposed, implemented in modified fashion, or not implemented at all?
- whether the proposed action or alternatives considered have significant impacts requiring analysis in an Environmental Impact Statement (EIS)?

The decisions on these two points and the reasons for those decisions, are found in the accompanying decision document.

D. AGENCIES CONSULTED DURING EA PREPARATION

Potential bighorn sheep range occurs on lands administered by USFS and BLM. Both agencies have been consulted and have been directly involved in the preparation of this Final EA. In addition, a Memorandum of Understanding (MOU) was developed by the USFS and FWP to define the roles of each agency for managing bighorn sheep in the Elkhorns, if bighorn sheep are released (see Appendix A).



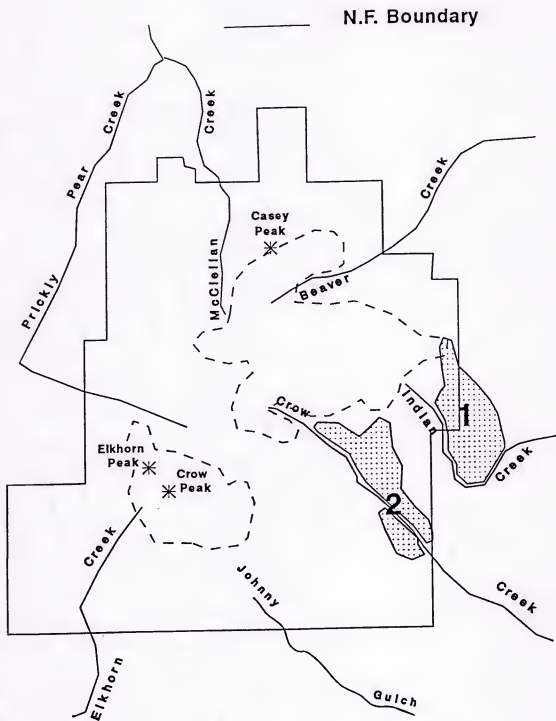


Figure 1. Sheep reintroduction project area including potential winter ranges (shaded) and summer ranges (dashed outline) in the Elkhorn Mountains. Winter Ranges are: 1) Indian Creek and 2) Crow Creek.



CHAPTER II.

THE ALTERNATIVES AND HOW THEY WERE DEVELOPED

A. GENERAL INTRODUCTION

Chapter II describes the alternatives that are being considered and provides a summary of their environmental consequences.

B. DEVELOPMENT OF ALTERNATIVES

1. Introduction

A two-step process was followed in developing alternatives. Step one was to define the issues and concerns raised by the proposal. The second step was to develop alternatives which addressed one or several of the identified issues.

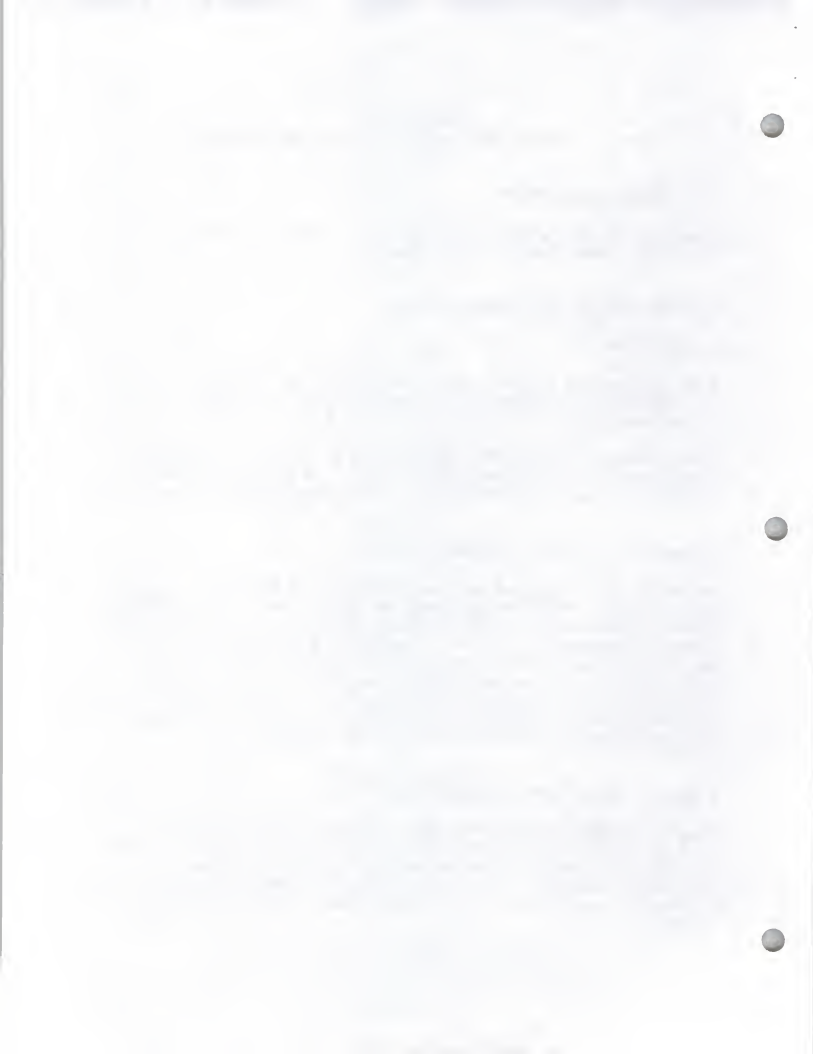
A list of issues and concerns were arrived at through an internal and public scoping process. It included asking the public and other government agencies for their concerns regarding the initial proposal to reintroduce bighorn sheep.

2. Description Of Internal And Public Scoping

Internally, a list of issues and concerns was developed by the managing agencies on July 13, 1993. Public scoping was done by a letter sent on August 5, 1994 to 75 individuals on an Elkhorn Mountains issues scoping list. Notices to the public appeared in newspapers of local and larger surrounding communities. Private landowners adjacent to the proposed release sites were also contacted in person to inform them of the bighorn sheep reintroduction project and discuss possible concerns. A total of 43 comments were returned and are located in the project file at the FWP Townsend Field Office. Comments were reviewed and summarized by agency personnel and were used as a basis to identify issues.

3. Issues Prompting Alternative Development

Because of the unique character of a bighorn sheep reintroduction project, few options were available for extensive alternative development. Consequently, one alternative was developed in response to two issues. This section lists each of those issues followed by a summary of the public scoping comments that prompted the issue. Additional important issues are discussed in the following section.



Issue 1. Activity Restrictions -- If bighorn sheep are reintroduced, is there the potential for new restrictions on motorized travel, mining, or other activities on federal lands?

There were comments from the public suggesting that no further activity restrictions would be acceptable, as well as comments suggesting that the agencies should restrict some activities to ensure the success of bighorn sheep reintroduction. Many comments were against restricting motorized travel for bighorn sheep. Existing mineral operations were concerned that bighorn sheep would interfere with on-going or anticipated mining activities, including reclamation. In other areas, bighorn sheep have foraged on newly vegetated reclamation sites.

Issue 2. Domestic Sheep -- If bighorn sheep are reintroduced, what potential is there for disease transmission from domestic sheep in the Limestone Hills, and what are the possible consequences to sheep permittees?

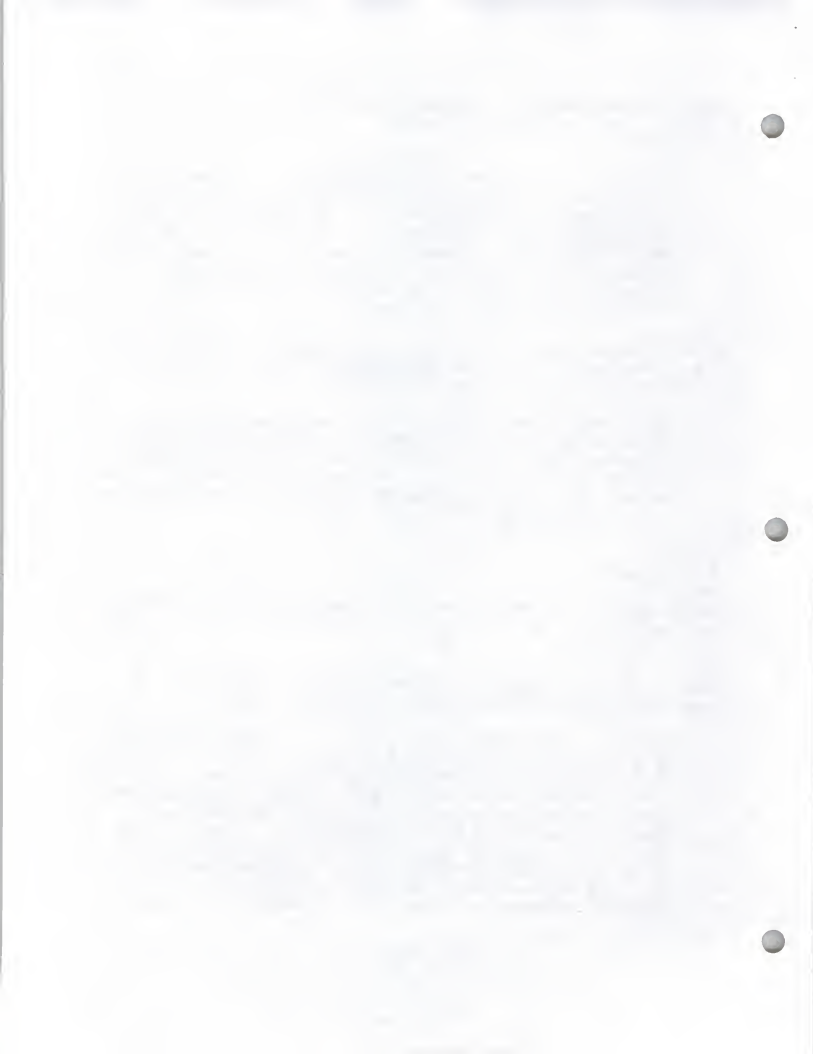
A few comments from the public stated that diseases transmitted from domestic sheep to bighorn sheep could keep a reintroduction effort from succeeding. Comments also suggested that in other areas, when disease has devastated bighorn sheep, domestic sheep operations were held accountable. Where this occurred in other areas, some groups promoted the conversion of sheep allotments to cattle allotments.

4. Other Issues

Environmental effects related to the following issues were evaluated for all of the action alternatives.

Issue 3. Competition For Forage -- Will bighorns compete for forage, space, or other habitat components with livestock or other wildlife species?

Many comments questioned the logic of introducing additional "grazers" in an area already supporting large herds of livestock, deer, and elk. They felt that since some of the livestock permittees recently took reductions in their permits, there must not be adequate forage for the existing ungulates in the area. The permittees expressed concern that further restrictions on livestock grazing would be the result of reintroduction. A few comments questioned if bighorn sheep would compete with mountain goats. Many comments suggested there were more elk in the Elkhorn Mountains than the existing forage base could support and until elk numbers were "controlled", bighorn sheep should not be reintroduced. A few comments



suggested there were too many livestock in the Elkhorns, and that livestock numbers should be reduced prior to reintroducing bighorn sheep. Several comments suggested forage could be created to support bighorn sheep and other ungulates through the use of prescribed burning and/or timber harvest.

Issue 4. Range Condition -- What long term effect will bighorn sheep have on soil, water, riparian areas, and vegetation?

This issue was generated internally by agency specialists. This issue is a check to ensure that unacceptable effects are identified as part of the decision making process.

Issue 5. Private Land -- Are bighorns likely to end up on private land where they are not wanted?

Several public comments suggested that like elk, sheep do not recognize federal land boundaries and some sheep are bound to reside on private lands in the areas they are reintroduced. A few comments supported the idea of reimbursing private landowners for the forage bighorns consume or for damage done on private lands by "wildlife watchers". Many comments suggested the way to control sheep was through hunting and translocation programs.

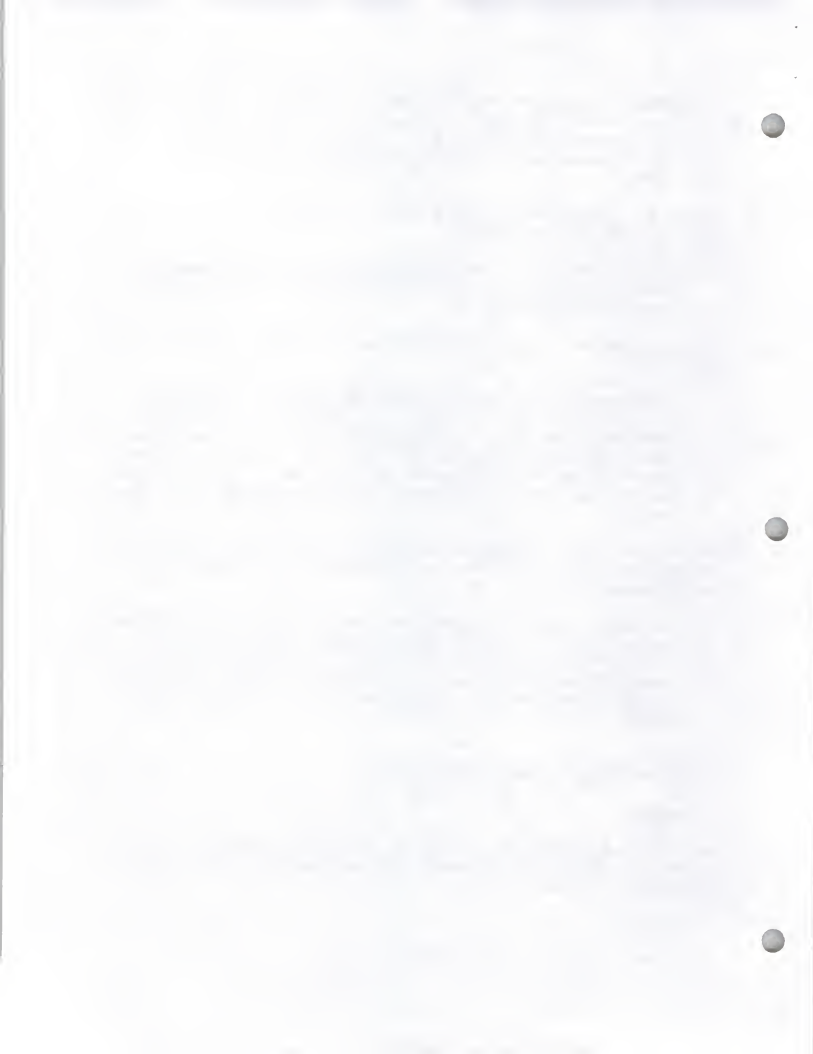
Issue 6. Recreational Opportunities -- If bighorn sheep are reintroduced, will they be available for hunting and for non-consumptive uses such as wildlife viewing and photography?

Many public comments suggested that in the future, positive benefits will be derived from the reintroduction of bighorn sheep through hunting and viewing activities. Other comments suggested that bighorn sheep may attract too many "viewers" (and possible poachers) and this activity may negatively affect traffic on existing roads or result in trespass on private lands.

C. ALTERNATIVES CONSIDERED IN DETAIL

1. Overview

The three alternatives being considered are described in this section. One action alternative in addition to the Proposed Action was developed to address Issues 1 and 2 as described above.



2. Features And Monitoring Common To All Action Alternatives

Each of the action alternatives call for the release of bighorn sheep in the ECMA. The FWP Commission's Final Bighorn Sheep Transplant Guidelines For Newly Established Herds (Appendix B) have been and will continue to be followed if bighorn sheep are released in the Elkhorns.

All releases, regardless of release site, involve capturing bighorns from other Montana herds and transporting the animals by truck to the release site. Bighorns would be handled in a manner which will minimize stress during transport (Aune 1994). Medications will be administered including an antibiotic to reduce the possibility of infection, ivermectine for parasite control, and a selenium supplement to reduce capture myopathy (Aune 1994). A vaccine may also be administered which could afford protection from certain *Pasteurella* bacteria during the first year after release (K. Aune pers. commun. 1994). Tests for disease and disease organisms, including *Pasteurella* spp., will be conducted and results documented.

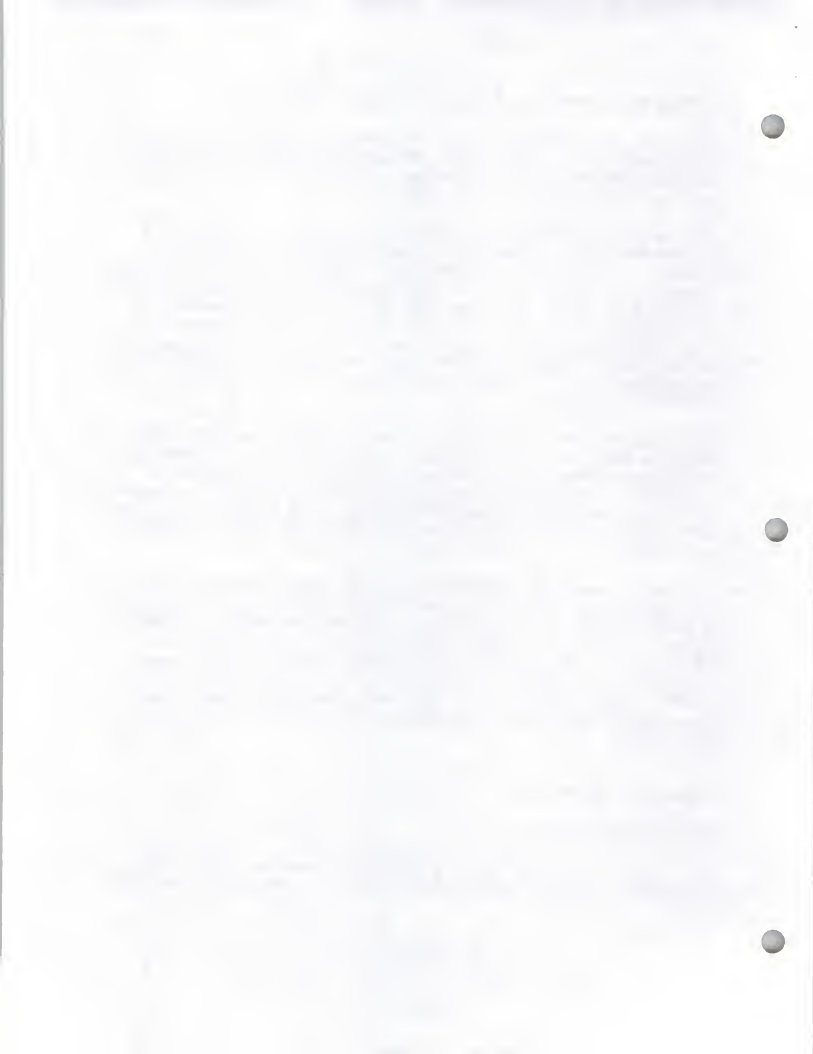
Post-release monitoring would include annual survey flights by FWP biologists to determine population size, distribution, and general herd status. In addition, upon release, selected sheep would be marked with radio-transmitter collars for obtaining basic movement information. Relocation flights would be flown monthly or as often as logistically possible. Hunting would not be allowed until such time as FWP biologists determined it was feasible and was approved by the FWP Commission.

Once bighorn sheep home ranges (winter) are determined through radio telemetry and other surveys, vegetation transects will be established to measure utilization on available grass species as per the Range Analysis Handbook (R-1 FSH 8/81). The objective of this monitoring is to determine if at least 40% of the annual biomass is left on site at the end of the grazing season (in this case early spring). Population objectives for bighorn sheep will be adjusted if utilization levels are greater than 60%. This will ensure bighorn sheep levels are compatible with vegetation desired conditions as described in the Elkhorn Landscape Analysis (USDA 1993a).

3. Alternative Descriptions

Alternative A (No Action)

Under the no action alternative, all management activities currently in progress would continue. However, bighorn sheep would not be reintroduced at this time.



Alternative A represents the baseline condition against which the potential effects of the 2 action alternatives can be compared. Alternative A also responds to those who oppose the bighorn reintroduction, including respondents wishing to postpone any releases until elk numbers are reduced.

Alternative B (Proposed Action)

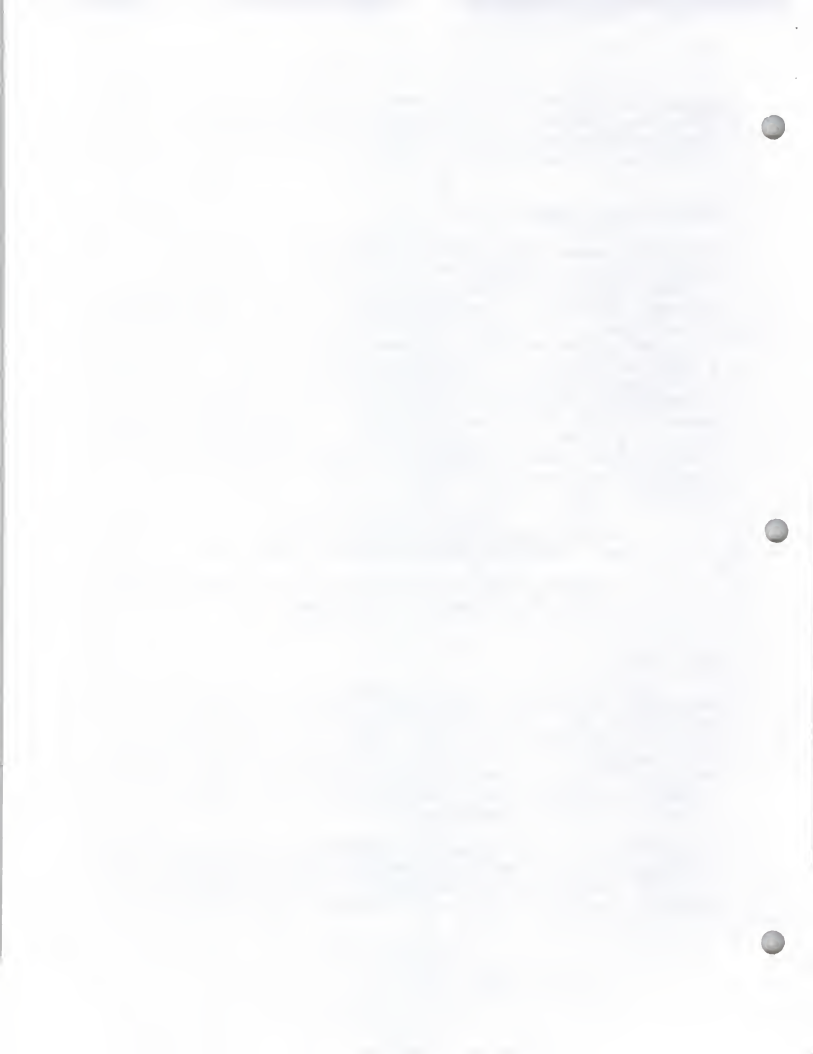
Alternative B represents the initial proposal for meeting the project objective specified in Chapter I. With this alternative bighorn sheep would be released on the Indian Creek and Crow Creek winter ranges (Figure 1). Two releases are planned for each release site during consecutive winters. All releases are expected to be completed by the year 2000. Both winter ranges are expected to support a total of 150 to 250 bighorns. The target population size will be based on what the publicly-owned winter ranges will support (see Features and Monitoring Common to All Action Alternatives, page 8). Under Alternative B, we intend to reintroduce populations on two winter ranges not to exceed 250 sheep. Vegetation monitoring may indicate either a lower or higher carrying capacity than was estimated in this analysis. If a higher carrying capacity is indicated, and the analysis determines additional impacts may occur, an amendment to this EA will be initiated to determine if populations should be allowed to expand. Tentative schedule of releases is listed below.

- Release 20-40 bighorn sheep in the Indian Creek winter range as early as winter 1995-96 and again the following winter.
- Release 20-40 bighorn sheep in the Crow Creek winter range as early as winter 1997-98 and again the following winter.

Alternative C

Alternative C is a modification of the Proposed Action. It is designed to reduce potential conflicts arising from releasing bighorn sheep near mining developments. Alternative C also reduces the possibility of bighorns coming into contact with domestic sheep. This alternative proposes to release bighorn sheep only in the Crow Creek winter range where there are presently no mining activities and the nearest domestic sheep operation is 6 miles distant (Figure 1). The Indian Creek release site is excluded in this alternative.

The Crow Creek winter range is expected to support from 75 to 125 bighorns. The target population size will be based on what the publicly-owned winter ranges will support (see Features and Monitoring Common to All Action Alternatives, page 8). If a higher carrying capacity is indicated (i.e. greater than 125 sheep), and the



analysis determines additional impacts may occur, an amendment to this EA will be initiated to determine if populations should be allowed to expand. A tentative schedule of releases is listed below.

- Release 20-40 bighorn sheep in the Crow Creek winter range as early as winter 1995/96 and again the following winter.

D. ALTERNATIVES CONSIDERED BUT NOT GIVEN DETAILED STUDY

Prescribed Burning on Public Land:

Portions of the Crow Creek winter range have been colonized by conifers as a result of fire suppression. Through prescribed burning, the grassland winter range would be expanded and regenerated for the betterment of bighorn sheep. Prescribed burning was considered for the Crow Creek winter range. However, a burning proposal on public land is beyond the scope of this document and may be considered by the USFS in a separate analysis.

E. COMPARISON OF ALTERNATIVES WITH RESPECT TO EFFECTS

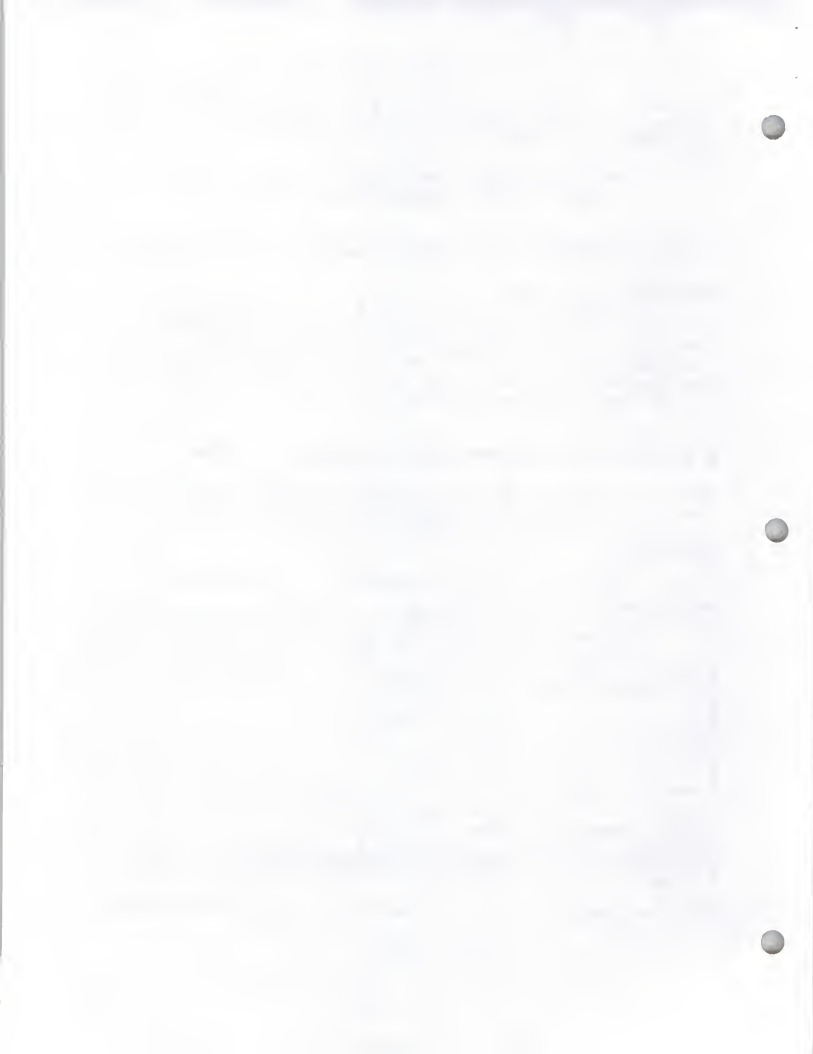
Table 1 is a comparison of the alternatives based on quantitative effects and details relating to potential for conflict. A more detailed issue-oriented comparison of the alternatives is found in Chapter IV Environmental Consequences.

Table 1. A comparison of effects and possible results of the 3 alternatives considered in detail.

Parameter		Alt. A	Alt. B	Alt. C
Expected population size		0	150-250	75-125
Approximate total winter range acreage	private	0	1200 ac.	0
	public	0	7440 ac.	2880
Nearest private land from release site		0	1.0 ^{1/} miles	2.0 miles
Nearest mining ^{2/} activities from release site		0	1.5 miles	6 miles
Nearest domestic sheep operation from release site		0	3 miles	6 miles

^{1/} All miles are air miles, much topographic relief exists in release site areas. The Indian Creek and Crow Creek release sites are approximately 1 and 2 miles from the nearest private land, respectively

^{2/} For more specific details related to possible effects on mining see Chapter IV, Activity Restrictions



CHAPTER III. THE AFFECTED ENVIRONMENT

A. INTRODUCTION

The purpose of Chapter III is to describe those components of the environment that could be affected by implementation of the proposed action or one of the action alternatives. The chapter begins with a general description of the proposal area. Resources related to project issues identified during the scoping process are described next.

B. AFFECTED ENVIRONMENT

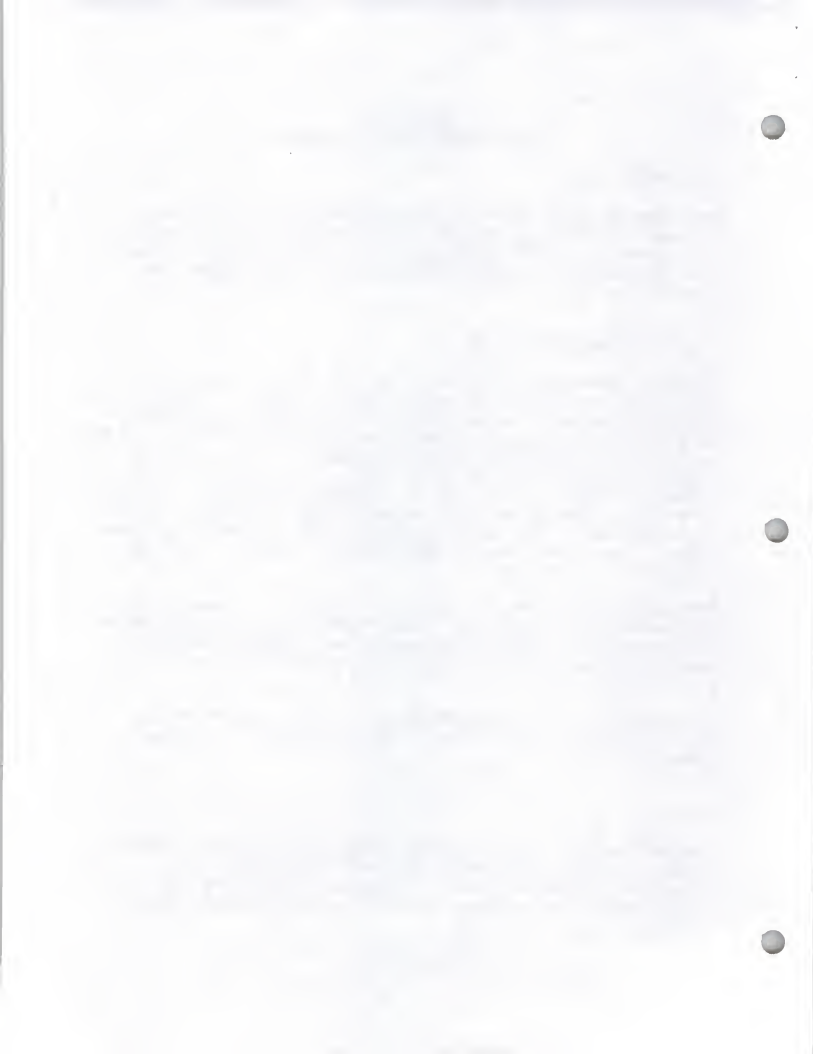
The Elkhorn Mountains are a relatively small, isolated mountain range lying southeast of Helena. The Elkhorn Cooperative Management Area (ECMA) which contains the mountain range is approximately 245,000 acres. Within the ECMA are about 160,000 acres of National Forest land and 85,000 acres BLM land. Vore (1993) outlined areas of suitable bighorn range within the Elkhorns (Fig 1.). Predicted seasonal ranges for bighorns lie within or on the periphery of National Forest and BLM lands. Winter ranges are along the east and south foothills of the mountains. Two potential summer ranges are found at higher elevations, 1) in the vicinity of Park, Crazy, High, and Casey Peaks and 2) near Elkhorn and Crow Peaks. The two summer ranges are referred hereafter as the north and south summer ranges, respectively.

Of the 2 potential summer ranges, the north is considered the most likely to be used by sheep from both Indian and Crow Creek release sites. The north summer range has a greater abundance of high elevation open parks and overall habitat components attractive to sheep including a more natural migration corridor from winter to summer range.

A description of winter and summer range areas, organized under 6 headings follows: Soil, Water, Vegetation, Other Wildlife, Social Issues, and Cultural Resources.

1. Soil

A detailed description of soils for the entire Elkhorn Mountain Range is found in the Elkhorn Landscape Analysis (USDA - Forest Service 1993a). Detailed descriptions of the geology and geomorphology and soils of the Crow Creek Analysis Area are found in the Crow Creek Environmental Assessment (pages 46-



48) (USDA, Forest Service 1993b). The Crow Creek Analysis Area includes both of the proposed reintroduction sites (potential winter range) for bighorn sheep. Reference should be made particularly to Landtype Associations 4 and 11 in the above documents.

Most of the area that bighorn sheep are predicted to occupy during the winter months are dominated by shallow to moderately deep Mollisols. Mollisols are characterized by having a dark colored surface horizon which is high in organic matter. The expansion of woody vegetation, primarily Douglas fir and juniper, to sage and grass community types has resulted in a disruption of nutrient cycling and soil moisture cycles in these areas. Surface soil erosion can be a problem in these areas. However, accelerated erosion can be prevented or limited when healthy plant communities which provide sufficient ground cover are maintained.

Most of the area that bighorn sheep are predicted to occupy during the summer months are dominated by rock, rubble and scree with some soil development occurring in volcanic ash-influenced deposits. Much of this area was influenced by glaciers. In this cold rocky zone, soil nutrient recycling and decomposition rates are very slow.

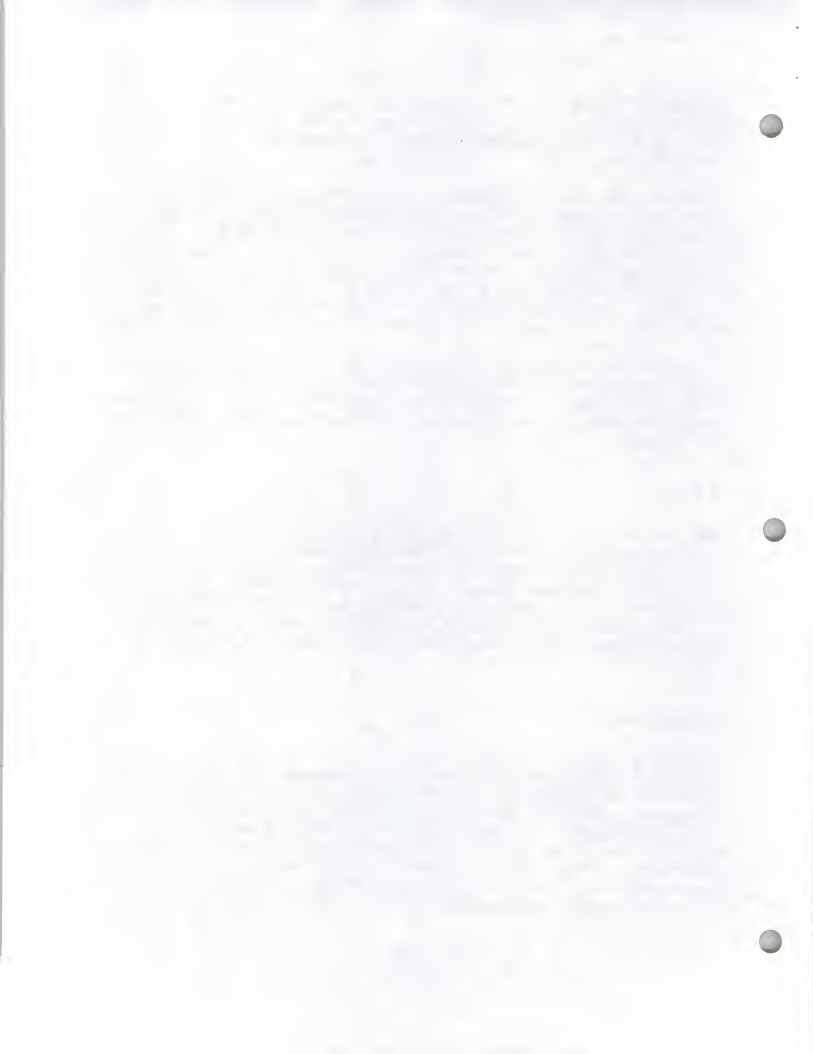
2. Water

The major drainages in the area influenced by this proposal include the Crow Creek and Indian Creek watersheds. Beaver Creek drains a large portion of the predicted summer range area. Watersheds and water are characterized in detail in the Elkhorn Landscape Analysis (USDA, Forest Service 1993a). and the Crow Creek Environmental Assessment (USDA Forest Service (1993b). The major impacts to these watersheds relate to livestock grazing, mining, beaver removal, road construction, timber harvest, and recreational sites (USDA Forest Service 1993b).

3. Vegetation

Habitat Types And Range Condition

The predicted bighorn winter range sites are characterized by grassland habitat types including bluebunch wheatgrass/blue grama, rough fescue/bluebunch wheatgrass, rough fescue/Idaho fescue, Idaho fescue/western wheatgrass, and Idaho fescue/bluebunch wheatgrass. Several shrub habitat types are also represented and include: mountain high sagebrush/rough fescue, mountain big sagebrush/Idaho fescue, curl-leaf mountain mahogany/Idaho fescue, and bitterbrush/Idaho fescue. Many of these grassland/shrublands have been affected to some degree by conifer colonization. This colonization is believed to be the



result of the combined influences of historic livestock grazing and fire suppression (USDA, Forest Service 1993a).

The condition of most of this predicted winter range is excellent. The Elkhorn Integrated Resource Management Analysis (USDA, Forest Service 1989) states that the "better growing sites, (North Crow Allotment) along ridgetops and far from water, have vigorous vegetation in the high to very high seral stages." Conditions on BLM lands at the Indian Creek winter site are very similar to those in Crow Creek, with vigorous vegetation predominating on the areas of preferred bighorn habitat.

Much of the area predicted as bighorn sheep summer range is forested and only lightly used by livestock and other wild ungulates (Vore 1993). In addition, most of the area burned in the 1988 Warm Springs Fire now supports lodgepole pine seedlings, grasses, and forb species beneath a canopy of dead trees. There are numerous small meadows and grassy parks in this area. Most of these are in good condition. However, in upper Crow Creek, some of these parks which historically supported a sheep grazing allotment, are in poor condition (unproductive, non-native species) due to influences of past grazing.

Threatened, Endangered, and Sensitive Species

No plants listed as threatened or endangered by the U.S. Fish and Wildlife Service are known to exist in the analysis area and no further consideration will be given them in Chapter 4. Table 2 is a list of sensitive species with a short description of habitats and potential for occurrence in the analysis area. Only sensitive plant species listed as "possible" or "likely" occurrence will be given further consideration in Chapter 4.

Table 2. Occurrence of sensitive plant species within the analysis area and affiliated habitat. Occurrence and habitat information is from Reel et al. 1989; and Poole and Heidel 1993.

Species	Occurrence	Habitat Characteristic
Pink Agoseris (<i>Agoseris lachschevitzii</i>)	Unlikely	Occurs in subalpine wet meadows, saturated soils, 6150-9500'
Short-styled Columbine (<i>Aquilegia brevistyla</i>)	Possible	Occurs in open woods and along streambanks, 5000-6000'
Maidenhair Spleenwort (<i>Asplenium trichomanes</i>)	Unlikely	Occurs in moist rock crevices and talus slopes, mid elevation
Peculiar Moonwort (<i>Botrychium paradoxum</i>)	Unlikely	Occurs in moist shrubby meadows, often near lakes, 4000-8000'

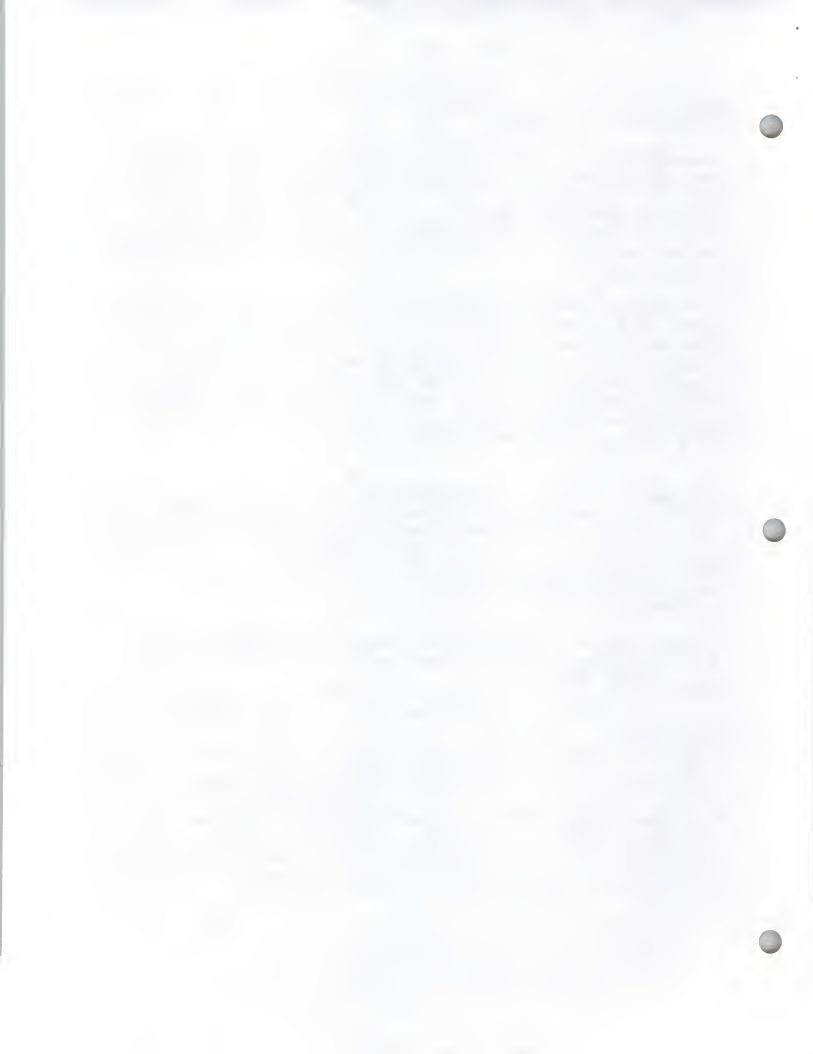


Table 2. Continued.

Species	Occurrence	Habitat Characteristic
Small Yellow Lady's-slipper (<i>Cypripedium calceolus</i> var. <i>parviflorum</i>)	Unlikely	Occurs in organic soils, moist coniferous forest, seepage areas, and moist ecotones between peatlands and upland forest, 3000-6200'
Giant Helleborine (<i>Epipactis gigantea</i>)	Unlikely	Occurs in warm water springs, lakes, and along streambanks, 2900-5800'
Hall's Rush (<i>Juncus hallii</i>)	Possible	Occurs in moist to wet meadows, 4000-8400'
Austin's knotweed (<i>Polygonum douglasii</i> var. <i>austinae</i>)	Possible	Occurs on moist bare shale slopes, 5140-6600'
Missoula Phlox (<i>Phlox kelseyi</i> var. <i>Missoulensis</i>)	Possible	Occurs in open, windswept slopes, occasionally in forb dominated meadows, 3600-7540'
Wolf's willow (<i>Salix wolfii</i> var. <i>wolfii</i>)	Unlikely	Occurs on rocky clay loam soils/montane to subalpine wet meadows, most often riparian, 6500-9000'
California False Hellebore (<i>Veratrum californicum</i>)	Unlikely	Moist meadows and along streambanks, montane to subalpine, 6000-8500'
Kidney leaved violet (<i>Viola renifolia</i>)	Possible	Occurs in organic soils, swampy spruce woods, 3000-5000'

4. Other Wildlife

Big Game Resources

The proposed bighorn summer and winter ranges overlap with existing elk, mule deer, and mountain goat habitats. Both of the bighorn winter ranges are inhabited by elk from the North Crow Herd Unit. Elk use these areas lightly primarily during winter but limited use occurs during the rest of the year. Elk from a number of herd units summer on and around both bighorn summer ranges. Mule deer are also distributed throughout much of the potential bighorn summer range. The Limestone Hills, which are south of the Indian Creek bighorn winter range, are an important mule deer wintering area. Mountain goats inhabit both bighorn summer ranges yearlong.

During the scoping process, a concern was expressed by several landowners adjacent to the Elkhorns regarding elk numbers. The FWP's Elk Plan (1992) has a population objective of 2000 elk in the Elkhorn Elk Management Unit. Based on aerial surveys conducted by FWP, elk numbers have been below this objective in



all years except 1993. To address this increase in elk numbers, antlerless permits were increased for the 1995 hunting season.

In the area where bighorn sheep are to be released, FWP in conjunction with the USFS and BLM are managing elk numbers and habitat to support approximately 1,000 elk during the winter (USDA Forest Service 1992a). Aerial surveys conducted by FWP last winter indicate elk numbers are within this objective.

Many of the landowners expressing concerns about an overabundance of elk are not in the vicinity of potential bighorn habitat. Based on our judgement there is suitable habitat on public land to support the stated objective of 250 sheep. FWP is committed to managing for Elk Plan objectives and will continue to work with cooperative landowners to ensure wildlife numbers on their private lands are within tolerable levels.

Threatened, Endangered, And Sensitive Species

Federally Listed Species: The endangered bald eagle is not present within the analysis area. Some eagles nest and winter along the Missouri River near Deep Dale fishing access. These critical habitat areas are at least 7 miles away from the analysis area.

The endangered gray wolf is not considered to occur near the analysis area. The Elkhorn Mountains are not part of a wolf recovery area.

The endangered peregrine falcon is not known to be present within the analysis area. There are no historical eyries on the Townsend Ranger District although habitat (and hack site potential) exists. These areas of habitat potential are outside the analysis area.

The threatened grizzly bear is not known to be present within the analysis area nor is there any known denning or summer use sites. Seasonal habitat for grizzlies may exist, however, the analysis area is outside the Northern Continental Divide Grizzly Bear Recovery Area.

Sensitive Species: Table 3 is a listing of sensitive species and the possibility of occurrence in the analysis area. Species listed as "No Occurrence" are given no further consideration in Chapter 4. A more detailed description of preferred habitat by selected sensitive species can be found in the Crow Creek Environmental Assessment (USDA, Forest Service 1993b).

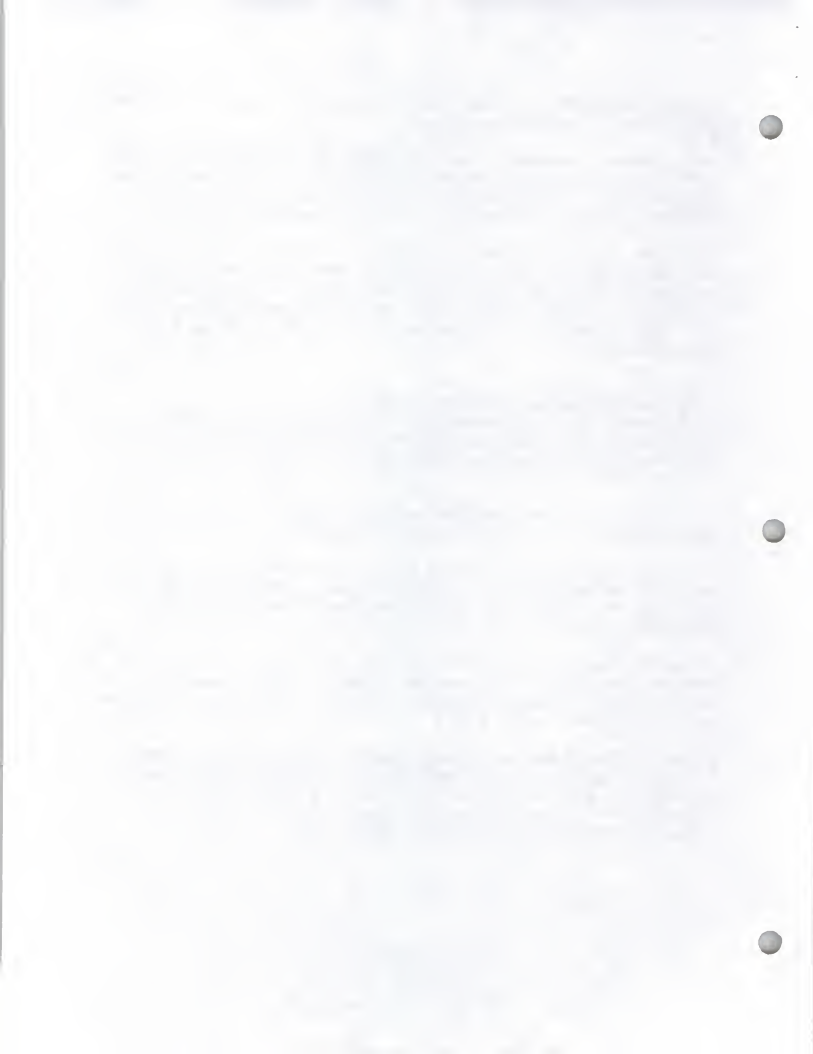
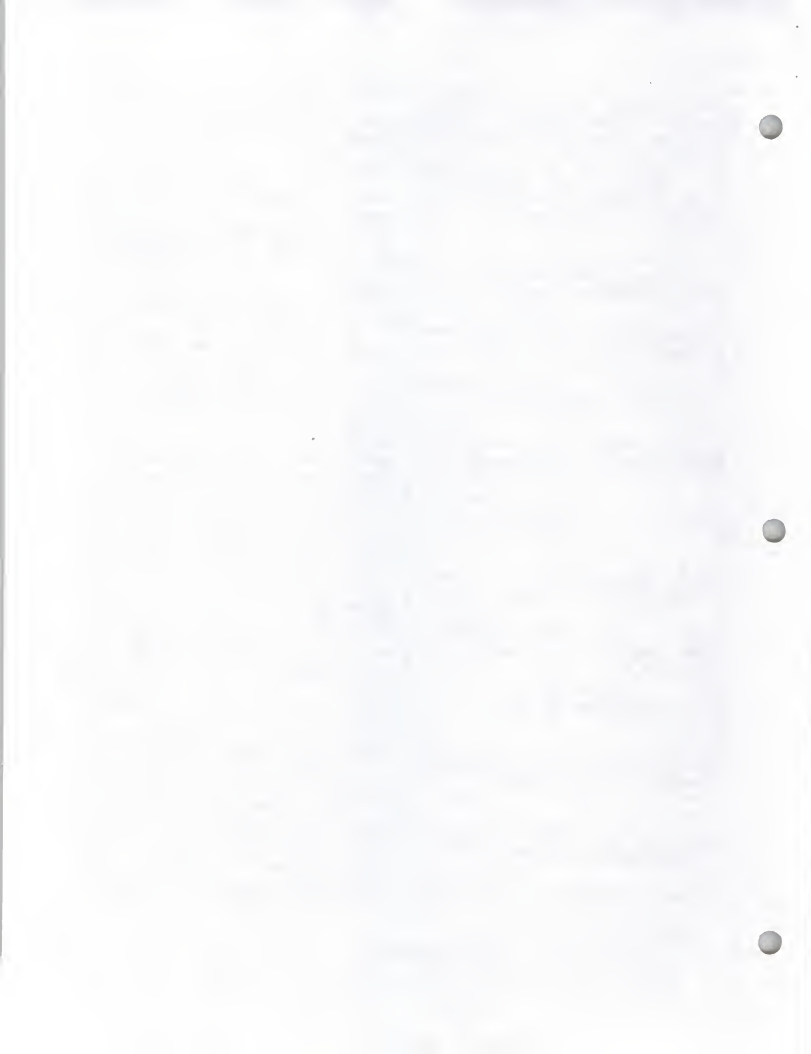


Table 3. Occurrence of sensitive wildlife and fish species within the analysis area. Species with "No Occurrence" are not considered further in Chapter 4. Occurrence and habitat information is from Reel et al. 1989; and Reichel et al. 1992.

Species	Occurrence	Comments
Boreal owl	Possible	Possible in the core area of the Elkhorns at the head of Crow Creek and South Fork Crow Creek; associated with high elevation spruce-fir forest
Ferruginous hawk	Possible	Habitat potential exists at lower elevations in open grasslands; prefer sparse grasslands and shrublands for nesting and foraging
Mountain Plover	Possible	High probability on BLM lands to the south of analysis area; associated with short grass prairies with high amounts of bare ground
Lynx	Possible	Potential habitat in core area of Elkhorns, no sightings on record; associated with dense conifer forest
Harlequin Duck	No occurrence	Lack of habitat in the analysis area; associated with swift mountain streams isolated from human disturbance during breeding
Fisher	Possible	Potential habitat in the core area of the Elkhorns, no sightings on record; prefer old growth coniferous forest in summer, young to mature coniferous forest during winter.
Flammulated Owl	Possible	Possible occurrence in lower elevation areas; associated with old growth forest, secondary cavity nesters
Black-backed woodpecker	Present	Sightings in Warm Springs burn area; prefer recently burned forest and mature/old growth forest with mixed conifer stands
Western Big-eared Bat	Possible	Possible in Indian Creek or other habitats with caves or underground mine openings; feed mainly in forest canopy but may also use sagebrush/grasslands and/or riparian areas
Westslope Cutthroat Trout	Present	Occurs in 4 or more streams in the ECMA; associated with cold, clear streams with rocky silt-free riffles for spawning and slow, deep pools for feeding and resting
Shorthead Sculpin	No occurrence	Occurs in riffles of small cold streams and larger waterways, documented west of continental divide



5. Social Issues

Motorized Travel

A separate comprehensive National Environmental Policy Act (NEPA) analysis addressing travel revision for the entire ECMA is currently being conducted by the USFS and BLM with FWP as a cooperator. Motorized travel in the Indian Creek winter range is currently open yearlong on BLM land and closed yearlong on National Forest land. The Crow Creek winter range is included in an area motorized travel closure which runs from December 1 through May 15.

The north and south bighorn summer ranges are covered almost entirely by a yearlong area closure to motorized travel. There is some motorized access at the extreme east edge of the north summer range, along the head of Whitehorse Creek, which is closed from December 1 through May 15. Two roads are accessible to the south summer range yearlong, the Elkhorn Skyline Mine road and the road which travels north out of the town of Elkhorn to the northwest side of Elkhorn Peak.

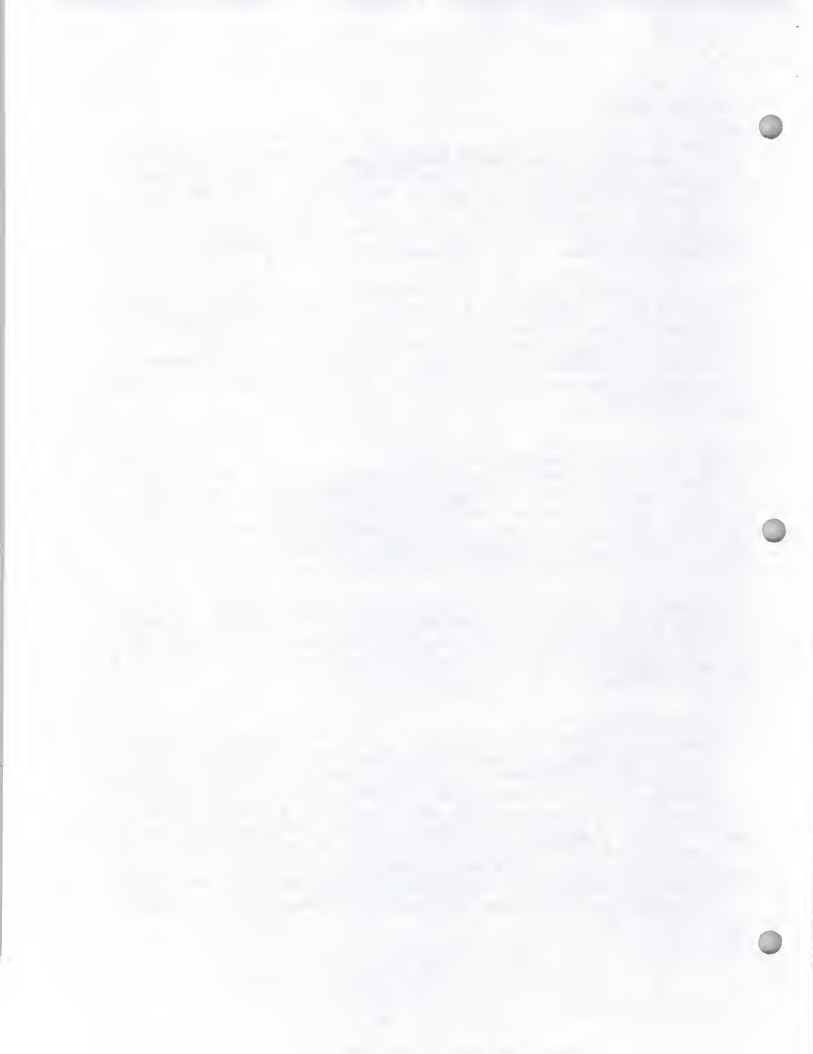
Mining and Recreational Activities

Mining and exploration activities presently occur in the project area. A limestone mine is in operation at the north end of the Limestone Hills, approximately 1.5 miles east of the Indian Creek release site. Mineral exploration was initiated about 6 years ago on Diamond Hill, approximately 1.5 miles west of the Indian Creek release site. Mineral exploration activities are also occurring near the south bighorn summer range, around the town of Elkhorn.

Recreation in the project area includes hunting, fishing, camping, hiking, horse riding, mountain biking, driving for pleasure, wildlife viewing, and off-road vehicle use (USDA Forest Service 1993b). Winter activities are restricted because of seasonal road closures designed to protect big game winter range. Some cross-country skiing occurs when snow conditions permit.

Livestock Grazing

There are no domestic sheep allotments on any predicted bighorn seasonal ranges. The potential bighorn winter and summer ranges overlap with some existing cattle grazing allotments. The majority of the Crow Creek winter range and a portion of the Indian Creek winter range occurs on the North Crow Grazing Allotment. This allotment is grazed in a 3-pasture deferred grazing system from June 15 to October 15. The remaining public portion of the Indian Creek winter range occurs on the Limestone Hills grazing allotment, a 5 pasture rest rotation system which supports grazing from May 31 to September 30. A small portion of the Crow Creek bighorn winter range occurs in the South Crow grazing allotment which is also managed under a 3 pasture deferred rotation system. Potential bighorn



summer range is generally at higher elevations, outside of grazing allotments or in more rugged topography than normally used by livestock. The north summer range occurs in portions of the North Crow and McClellan Allotments and the south summer range occurs on portions of the Elkhorn Allotment. Although potential summer range overlaps with portions of grazing allotments, most occurs outside of areas utilized by livestock.

Vegetation and livestock utilization mapping was accomplished in conjunction with the Crow Creek Environmental Assessment. Most of the problems in the allotments (North Crow, South Crow, Limestone Hills) are attributable to conifer colonization and poor livestock distribution (livestock congregate in areas near water). The decision made relative to livestock grazing in the Crow analysis was to reduce stocking and to implement revised allotment management plans. The reduced stocking levels cannot be attributed to limited forage availability. Rather, they are based on the amount of "suitable" range and the condition and "stage" of the existing vegetation (USDA Forest Service 1993b).

Most of the area that is predicted to be occupied by bighorn sheep during winter is classified as unsuitable or secondary range. Its classification as unsuitable is primarily a factor of steepness, therefore making it inaccessible to livestock. Where slope is not a factor, the range may be suitable for livestock, but, due to a lack of water, it is classified as secondary range (FS Range Handbook FSH 8/81 AMEND 20). Domestic livestock prefer gentle slopes and easy access to freestanding water.

Private Land

The Indian Creek potential winter range includes approximately 1200 acres of private land along the north and west periphery. Range conditions on these private lands are similar to those on public lands as discussed in the preceding section. Lower elevations and benchlands near water sources are in mid to low seral condition while slopes and higher elevations are in mid to late seral condition. While this private land may qualify as potential winter range, we feel there is a fairly low probability for it to be used. The private land is at least 1 mile from the proposed publicly-owned release site. The public land in this area has high quality foraging areas with adjacent escape cover attractive to bighorn sheep. The Crow Creek winter range occurs entirely on public land. The bighorn summer ranges include some isolated patented mining claims but are otherwise publicly-owned lands.

6. Cultural Resources

Both action alternatives do not involve any ground disturbing activities. Therefore, no further discussion of Cultural Resources will be given in Chapter 4.



CHAPTER IV ENVIRONMENTAL CONSEQUENCES

The purpose of Chapter IV is to describe the potential consequences of implementing each of the alternatives under consideration. This chapter forms the scientific and analytic basis for comparison of the alternatives, including the proposed action.

The primary emphasis is on resources connected with issues identified during the scoping process described in Chapter II. Resource discussions are presented in the same order as they appeared in Chapter III.

With any wildlife reintroduction project, there are many unknowns. Until bighorn sheep become established and use seasonal habitats in a traditional manner, some of the effects can only be anticipated based on predicted bighorn sheep behavior and habitat preferences.

A. SOIL

Effects of implementing Alternative A:

Because bighorn sheep would not be released under the no action alternative, soils would remain unaffected.

Effects of implementing the action alternatives:

Bighorn sheep are expected to have little impact on soils. Isolated erosion may occur where soils have been disturbed by hooved traffic, especially where vegetation is sparse. Soils can best be conserved by maintaining healthy vegetative cover.

B. WATER

Effects of implementing Alternative A:

Because bighorn sheep would not be released under the no action alternative, water resources would remain unaffected.

Effects of implementing the action alternatives:

Water quality is not expected to be impacted by reintroduced bighorn sheep. Bighorns spend little time in riparian areas. If isolated soil erosion would be caused by bighorn sheep it would most likely be at too small of a magnitude to impact water quality.



C. VEGETATION

1. Range Condition

Effects of implementing Alternative A:

Because bighorn sheep would not be released under the no action alternative, range condition would remain unaffected.

Effects of implementing the action alternatives:

At the desired population levels (250 bighorns under Alternative B and 125 bighorns under Alternative C) no impacts on range condition are anticipated. Bighorns are expected to be the primary grazer on their predicted winter ranges. Present use of these areas by big game and livestock is light, probably because of the rough terrain and a lack of water sources. Long term detriment to the range is improbable since native grasses in the Elkhorns have evolved with grazing by large herbivores, including bighorns (USDA, Forest Service 1993a).

Bighorn sheep would also have little impact on riparian areas. In northern climates, bighorns obtain most of their water from feeding on succulent vegetation and from snow (Lawson and Johnson 1982). Bighorns do not key in on riparian vegetation as a food source, but feed primarily on upland grasses and forbs. Shrubs can be important foods during periods of deep snow but are typically upland species (i.e. sagebrush, curl-leaf mountain mahogany, rabbitbrush, winterfat, etc.) (Lawson and Johnson 1982).

Prescribed burning is not proposed at this time. For further information regarding future prescribed burning see Chapter II, D. Alternatives Considered But Not Given Detailed Study.

2. Sensitive Plant Species

Effects of implementing Alternative A:

Because bighorn sheep would not be released under the no action alternative, sensitive plants would remain unaffected.

Effects of implementing the action alternatives:

This section summarizes the effects of the alternatives on the sensitive plants that are "likely" or "possible" to occur in the analysis area (see Chapter III).

The highest potential for negative effects on sensitive species by bighorn sheep occurs with plants. After reviewing food items eaten by bighorn sheep (Oldemeyer et al. 1971, Todd 1975, Keating et al. 1985), it was determined the Missoula phlox could possibly be affected by bighorn sheep, if it exists in the Elkhorn Mountains.



Bighorns are known to eat members of the *Phlox* genus, of which there are several species. The likelihood of bighorns focusing grazing on the Missoula phlox is very small. Moreover, both phlox and bighorns are native species which have co-evolved. If bighorns are reintroduced into the ECMA, the long term impact on Missoula phlox, if it occurs, is predicted to be slight if at all.

Austin's knotweed is affiliated with bare shale slopes. Because of possible habitat overlap, this plant species may also be impacted by incidental feeding. It is not, however, a documented bighorn sheep food item. Presently, this sensitive plant species has not been found in the Elkhorn Mountains. If it does occur, long term negative impacts to the knotweed population are unlikely.

Table 4. Predicted effects of the alternatives on sensitive plants which have the potential of occurring in the analysis area.

Species	Effects
Short-styled Columbine	No expected impact; outside the realm of bighorn food habits, little habitat overlap, none found to date
Hall's Rush	No expected impact; outside realm of bighorn food habits, none found to date
Austin's Knotweed	Low possibility of impact; within normal bighorn summer habitat, but outside documented bighorn food habits and none found to date
Kidney leaved violet	No expected impact; outside realm of bighorn food habits, little or no habitat overlap, and none found to date
Missoula Phlox	Possible impact on individual plants but no anticipated long-term effect; none found to date

D. OTHER WILDLIFE

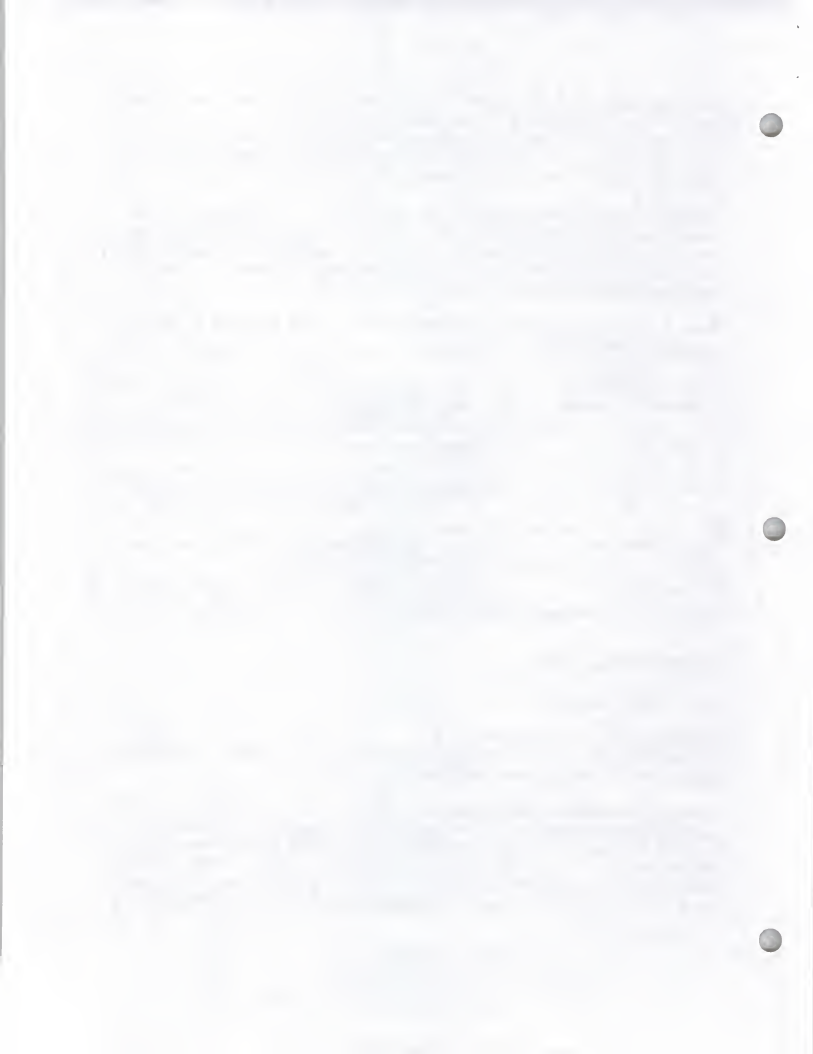
1. Big Game Resources

Effects of implementing Alternative A:

Because bighorn sheep would not be released under the no action alternative, big game resources would remain unaffected.

Effects of implementing the action alternatives:

Reintroducing bighorns onto historic range in the Elkhorns is not expected to have a significant negative impact on existing wildlife species. The proposed release sites were selected in part to avoid possible conflicts with deer and elk. Elk have been known to compete with bighorns for winter forage. However, a preliminary examination of the proposed winter ranges and results of a recent elk movement



study in the Elkhorns (DeSimone and Vore 1993) suggest bighorns would be occupying an area used lightly by elk during the winter and lambing seasons. Also, when elk numbers are maintained at moderate levels, partial niche separation between elk and bighorn sheep may occur (Constan 1972). There is no overlap of the predicted bighorn winter ranges with known core mule deer winter ranges.

Some overlap in food habits exist between mountain goats and bighorn sheep but no significant impact on goats is anticipated. Bighorns are expected to inhabit mountain goat range only during summer when forage is usually not limiting. Mountain goat and bighorn sheep summer ranges have overlapped in other areas without substantial conflict (Adams et al. 1984). In addition, some separation exists between bighorns and mountain goats both in their diets and the type of terrain for which they are adapted (Adams et al. 1984, Dailey et al. 1984).

2. Sensitive Wildlife and Fish Species

Effects of implementing Alternative A:

Because bighorn sheep would not be released under the no action alternative, sensitive wildlife and fish species would be unaffected.

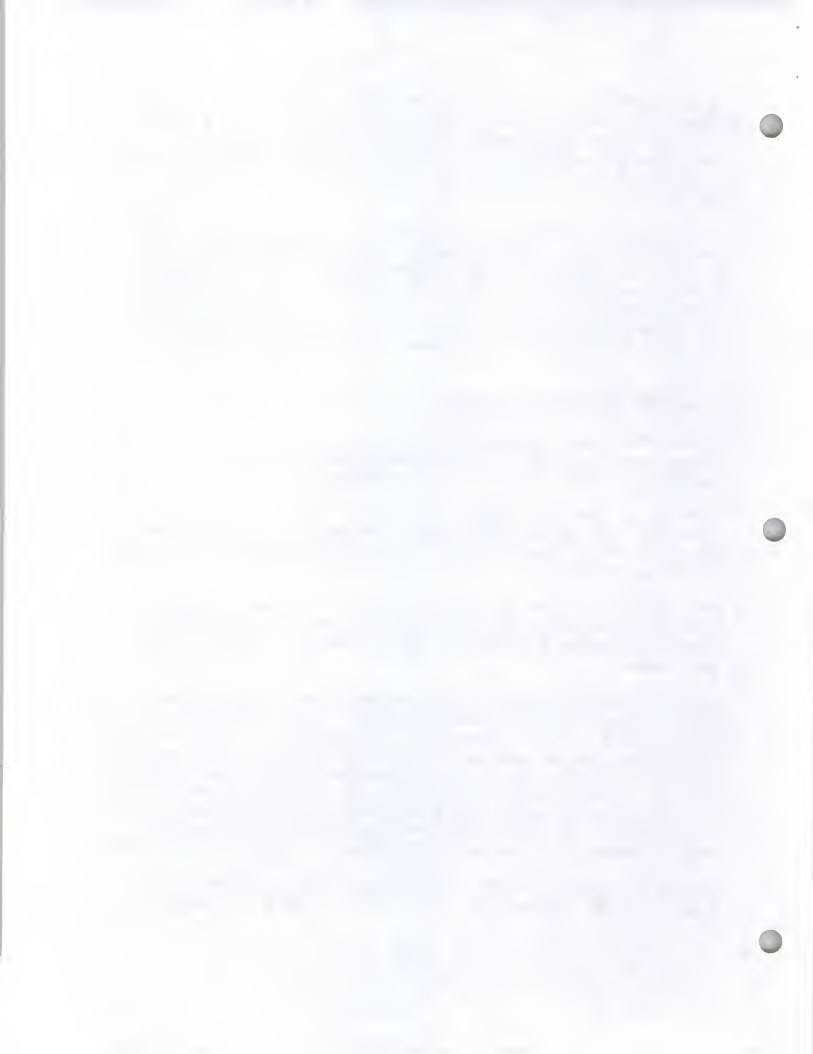
Effects of the action alternatives:

This section summarizes the effects of the alternatives on sensitive wildlife and fish species which are either known to occur in the analysis area or are possible inhabitants (see Chapter 3).

For many of these species their habitats do not typically overlap with bighorn sheep. Bighorns are not predicted to spend much time in forested habitats (Lawson and Johnson 1982) which is where 5 of the sensitive species normally occur (Table 5).

The ferruginous hawk may occur on bighorn sheep winter ranges. They will occasionally nest on grassland hilltops and ridges but more commonly nest in trees (Harrison 1979). Nests are normally very large, measuring 3 feet or more in height. It is difficult to speculate what possible impacts bighorn sheep might have on ferruginous hawks. The habitat which ferruginous hawks normally hunt (i.e. open grasslands/shrublands) will, for the most part, remain unchanged. It is also doubtful the simple presence of bighorns would have a negative impact since both species have evolved together. Although there is a possibility of overlapping habitats between the two species, the likelihood of any negative impacts is slight.

There is also a possibility of big-eared bat habitat overlapping with predicted bighorn habitats. Bighorns are known to occasionally use cave entrances for



bedding (Lawson and Johnson 1982). However, bighorns are not otherwise anticipated to impact big-eared bat habitats or their associated forage base. The long term impact on big-eared bats, if overlap should occur, is predicted to be minimal.

Table 5. Predicted impacts on sensitive wildlife and fish species which are either known to occur in the analysis area or are possible inhabitants.

Species	Effects
Boreal owl	no impact; forest habitat does not overlap with predicted bighorn habitat
Ferruginous hawk	low possibility of impact; low elevation grassland/shrubland habitat may overlap with predicted bighorn habitat
Mountain plover	no impact; short grass prairie habitat does not overlap with predicted bighorn habitat
Lynx	no impact; dense conifer forest habitat does not overlap with predicted bighorn habitat
Fisher	no impact; coniferous forest habitat does not overlap with predicted bighorn habitat
Flammulated owl	no impact; mature conifer forest does not overlap with predicted bighorn habitat
Black-backed woodpecker	no impact; forest habitat is outside predicted bighorn habitat
Western big-eared bat	low possibility of impact; possible habitat overlap but habitat and food source will be unaffected
Westslope cutthroat trout	no impact; habitat unaffected

E. SOCIAL ISSUES

If bighorn sheep are released into the Elkhorn Mountains, the project would be subject to the "Bighorn Sheep Transplant Guidelines For Newly Established Herds, adopted by the FWP Commission. The guidelines include how FWP would respond if the bighorns fail to thrive or end up on private land outside predicted ranges or conflict with livestock operations on private and public lands (see Appendix B, guidelines 8 and 9). The guidelines provide additional protection for private property and some existing land uses discussed in this section.



1. Activity Restrictions

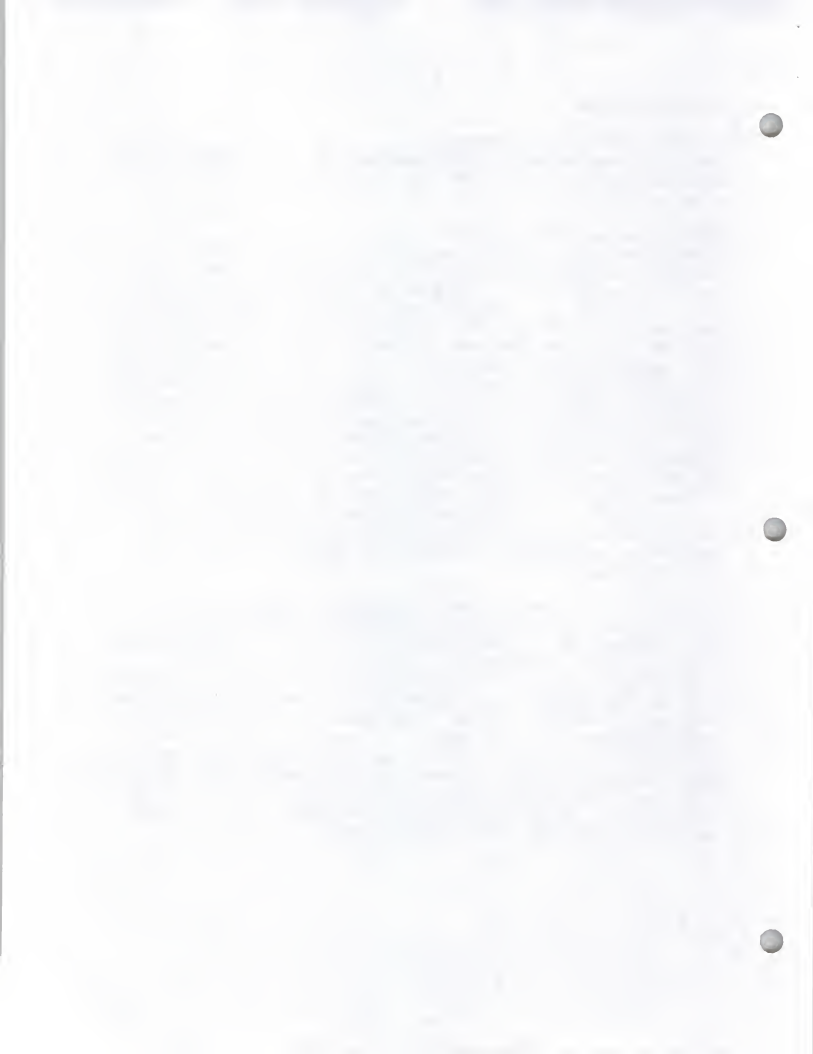
Effects of Implementing Alternative A:

Because bighorn sheep would not be released under the no action alternative, no additional road closures would occur and potential conflicts with mining or other activities would not exist.

Effects of Implementing the Action Alternatives:

No travel plan revisions are proposed in either of the action alternatives. Motorized travel on the ECMA is currently being addressed in a separate NEPA analysis by the USFS and BLM with FWP as a cooperator. All of the travel revision alternatives in this analysis include a winter travel closure (12/1-5/15) for approximately 4.5 miles of road which crosses the Indian Creek bighorn winter range leading to the Iron Mask Mine. Currently this stretch of road, occurring on land managed by the BLM, has no motorized travel restrictions. This is the only travel restriction being proposed in relation to the reintroduction of bighorn sheep. This proposed winter travel closure is not essential to the success of this project, but may provide additional security for wintering bighorn sheep as well as deer and elk. However, since decision on travel revisions is a federal action, it is outside the scope of this MEPA analysis. Specifics on the travel revision can be obtained from the BLM or USFS. Under Alternative C, bighorns would only be released at the Crow Creek winter range. Because the Crow Creek winter range is presently under a winter road closure (to protect wintering elk) no additional seasonal road closures would be necessary under this alternative. Releasing bighorn sheep into the ECMA is not predicted to bring about additional road closures in the future.

No additional activity restrictions are anticipated as a result of either action alternative. The presence of bighorns in the ECMA are not predicted to solely limit activities presently occurring on the ECMA, i.e. recreation, mining, grazing, etc. Bighorn sheep, along with other wildlife species and resources, may collectively play a role in planning future activities. Alternative C was developed to minimize any potential conflicts with existing mining operations in the vicinity of the Indian Creek release site and provide additional distance between domestic sheep and the proposed bighorn winter range. However, Bighorn sheep are probably less sensitive to activities such as mining than other big game species occurring in the area (e.g. the bighorn sheep herd near Melrose, Montana has habituated to a nearby mining operation with no apparent ill effects). Concerns of mining companies, as to the possibility of bighorns using reclaimed areas, are valid and joint mitigation will be developed as needed.



2. Competition With Livestock For Forage

Effects of implementing Alternative A:

Because bighorn sheep would not be released under the no action alternative, there would be no possible competition with livestock.

Effects of implementing the Action Alternatives:

With the bighorn population objectives, there are no substantial conflicts expected with livestock. Bighorns are generally considered to be poor competitors with other wild or domestic ungulates (Lawson and Johnson 1982). The bighorn's preference for rugged habitats and their ability to feed in areas far from standing water separates them from areas normally grazed by livestock. The anticipated bighorn winter ranges in both action alternatives are not considered primary range for domestic livestock. Past utilization by livestock on these areas has been negligible (pers. commun. S. Douthett and L. Rau).

3. Domestic Sheep

Effects of implementing Alternative A:

Under Alternative A, domestic sheep operations in the area will remain unaffected as no bighorn sheep will be released.

Effects of implementing the action alternatives:

There is no indication in the literature of disease transmission from bighorn sheep to domestic sheep. Domestic sheep can carry a strain of *Pasteurella* which domestic sheep are immune to, but is potentially toxic to bighorns. Released bighorns are not expected, based on the predicted winter range boundaries to interact with domestic sheep. Although there is only 3 miles aerial distance from the Indian Creek release site to a domestic sheep allotment in the Limestone Hills, substantial topographic relief occurs within this distance. Under Alternative C, bighorns would only be released at the Crow Creek release site, approximately 6 miles from the domestic sheep allotment. The probability of interaction with domestic sheep is therefore less under Alternative C. However, no effects on existing domestic sheep operations are predicted under either action alternative.

4. Private Land

Effects of implementing Alternative A:

Because no bighorn sheep would be released under the no action alternative, there is no possibility of bighorns conflicting with private lands.



Effects of implementing the action alternatives:

The proposed release sites were selected to avoid bighorn sheep occupation of private lands. Nearly all of the land which bighorns are expected to use is publicly-owned. Adjacent private lands may provide limited winter range to bighorns but are not expected to be used throughout the rest of the year. Private landowners adjacent to release sites were contacted and informed of the bighorn sheep project (Project File). Most landowners contacted had no strong opposition to reintroducing bighorns and some showed both an interest and support for the project.

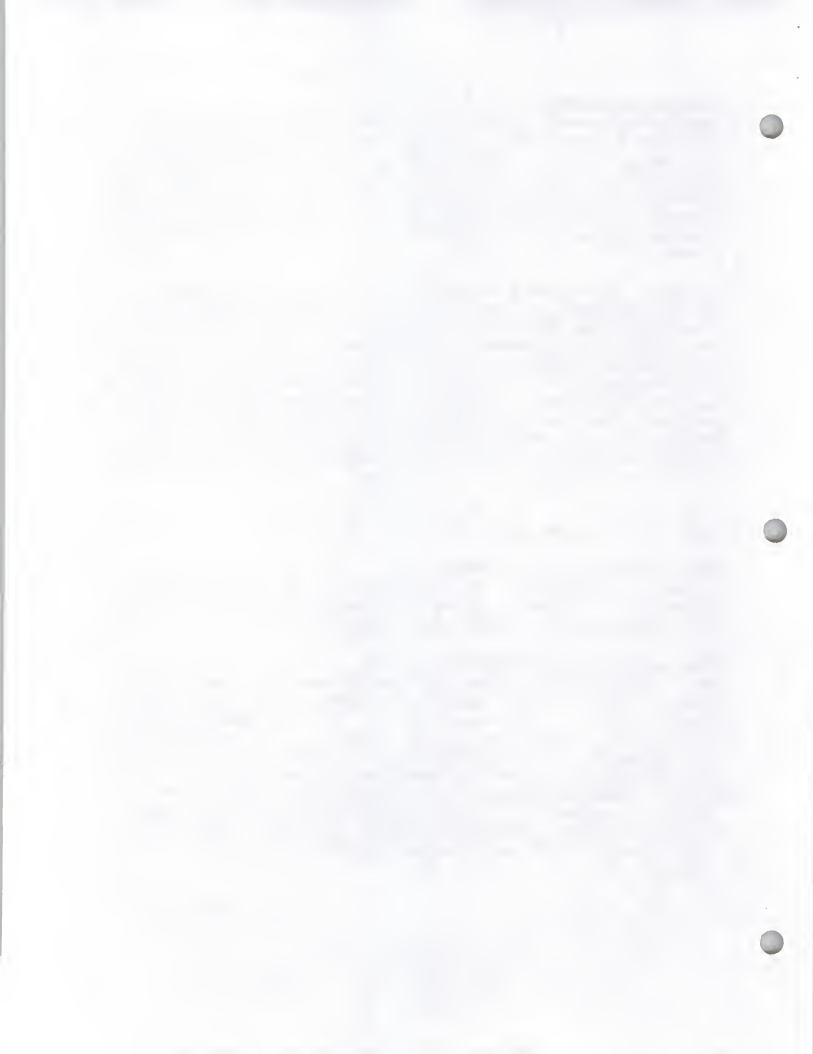
If bighorn sheep depredation problems occur on private property, a number of possible actions may be taken by FWP, in cooperation with the landowner, to resolve the problem. Where possible, hunting and/or translocation to other reintroduction sites may be used. Hazing, herding, or scare guns may also be employed as the situation merits. At the suggestion of some landowners adjacent to the release sites, there is a possibility prescribed burning by USFS and/or BLM on private land may be used to improve range conditions for domestic livestock and bighorn sheep. Such action may be taken to mitigate for persistent use of private land by bighorn sheep. In most or all depredation cases, if any should occur, more conventional remedies (i.e. hazing, scare guns, hunting, translocation, etc.) will be utilized.

5. Recreational Opportunities**Effects of implementing Alternative A:**

Because bighorn sheep would not be released under the no action alternative, there would be no opportunity for hunting or viewing bighorn sheep in the ECMA. Also, no potential conflicts related to these activities would arise.

Effects of implementing the action alternatives:

Both action alternatives would create additional recreational opportunities for viewing wildlife in the ECMA. Alternative B involves one more release site than Alternative C. Therefore, it is likely Alternative B would enhance hunting and bighorn viewing opportunity more than C. During the scoping process there was some concern expressed about wildlife viewing. These were: (1) trespass problems on private land; (2) interference with mining operations; and (3) human disturbance of bighorn sheep. Under both action alternatives, there is some potential for each of these scenarios to occur. It is, however, difficult to estimate the probability of such occurrences at this time. Because bighorn sheep hunting would be limited to a few permits, the potential for similar conflicts is considerably less.



Strategic pull-offs along roadways for viewing bighorns in conjunction with interpretive signs educating the public on responsible viewing may be used to curb potential conflicts with sheep, private land, and other activities.

F. CUMULATIVE EFFECTS

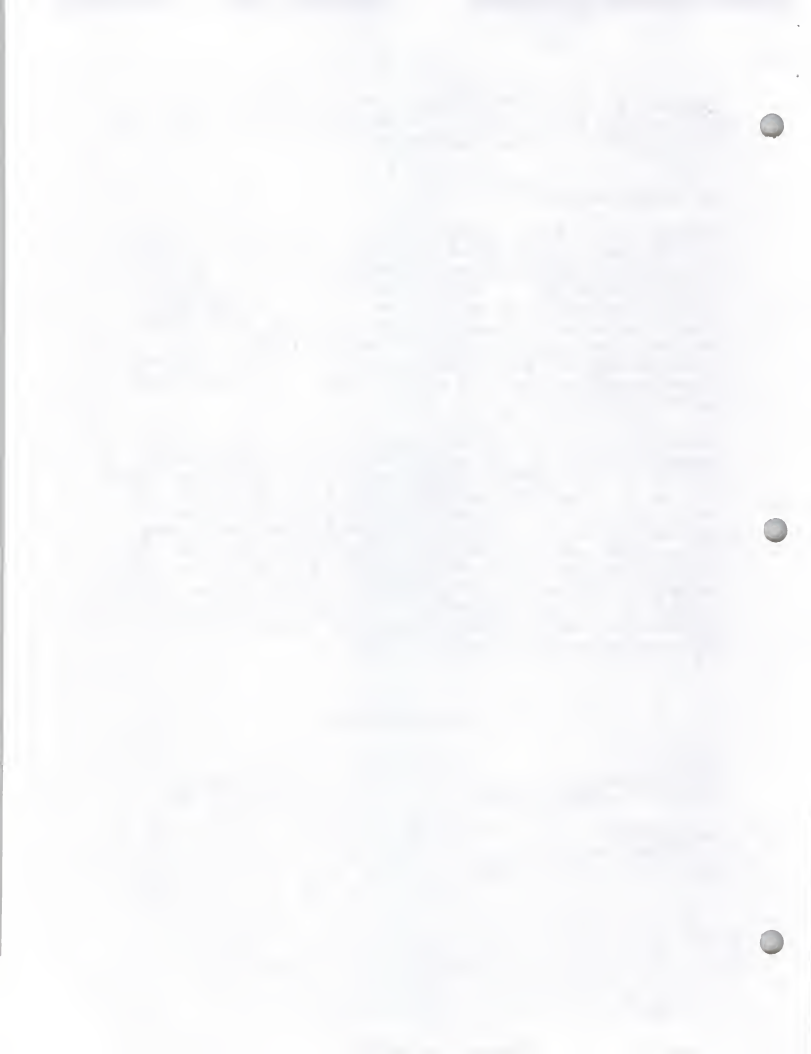
Chapter 3 described the existing conditions within the analysis area. Activities expected to occur within the affected environment for the reasonable foreseeable future include: (1) vegetation treatments (prescribed burning) as per the Crow Decision Notice, July 1994; (2) modify livestock grazing practices (utilization standards, riparian guidelines as per the Crow Decision Notice, July 1994; (3) travel management decision; and (4) expansion of mining, potentially Diamond Hill (Pegasus Gold Corp.), Continental Lime, and Santa Fe Pacific Gold Corporation. Both the Diamond Hill and Santa Fe Pacific Gold ventures are in the exploration phase and as far as we know the decision to develop these sites has not yet been made.

The cumulative effects of bighorn sheep reintroduction along with the above reasonably foreseeable activities were considered. No measurable cumulative effects are anticipated. Because bighorn sheep are grazers, the highest probability of a cumulative effect would be associated with the forage base. As this environmental assessment has shown, the probability of competition for forage with other ungulates is slight because: (1) past forage utilization by livestock on predicted bighorn ranges has been low due to the rough terrain and/or the absence of free standing water; (2) predicted bighorn winter ranges are outside of known core deer winter ranges; (3) past use of predicted bighorn winter ranges by elk has been light; and (4) bighorn numbers will be managed at a level which will maintain winter range desired vegetation conditions (see Chapter 2, Features and Monitoring Common to All Action Alternatives).

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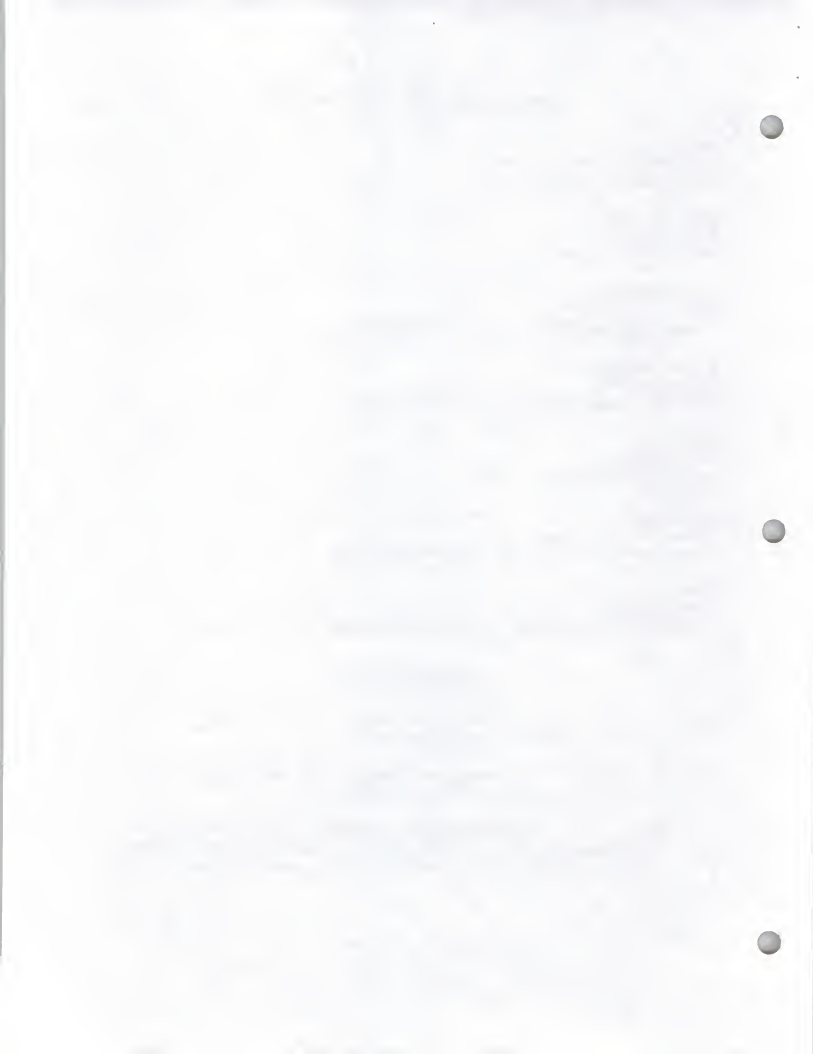
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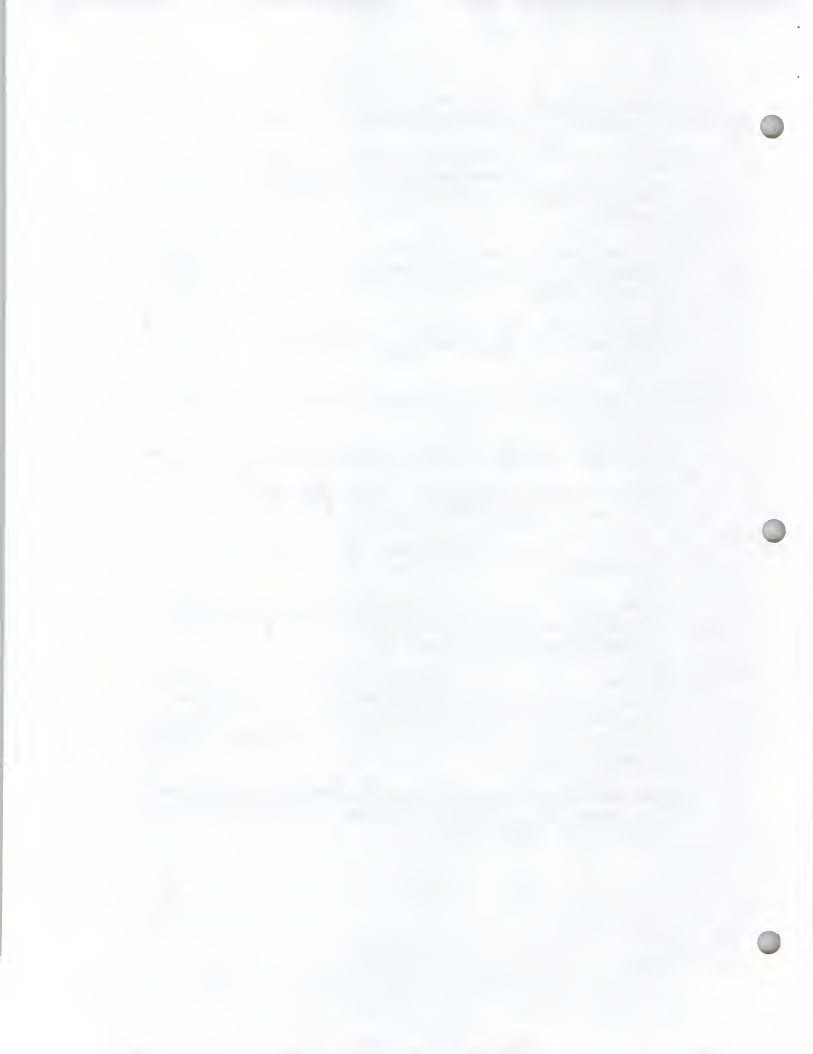
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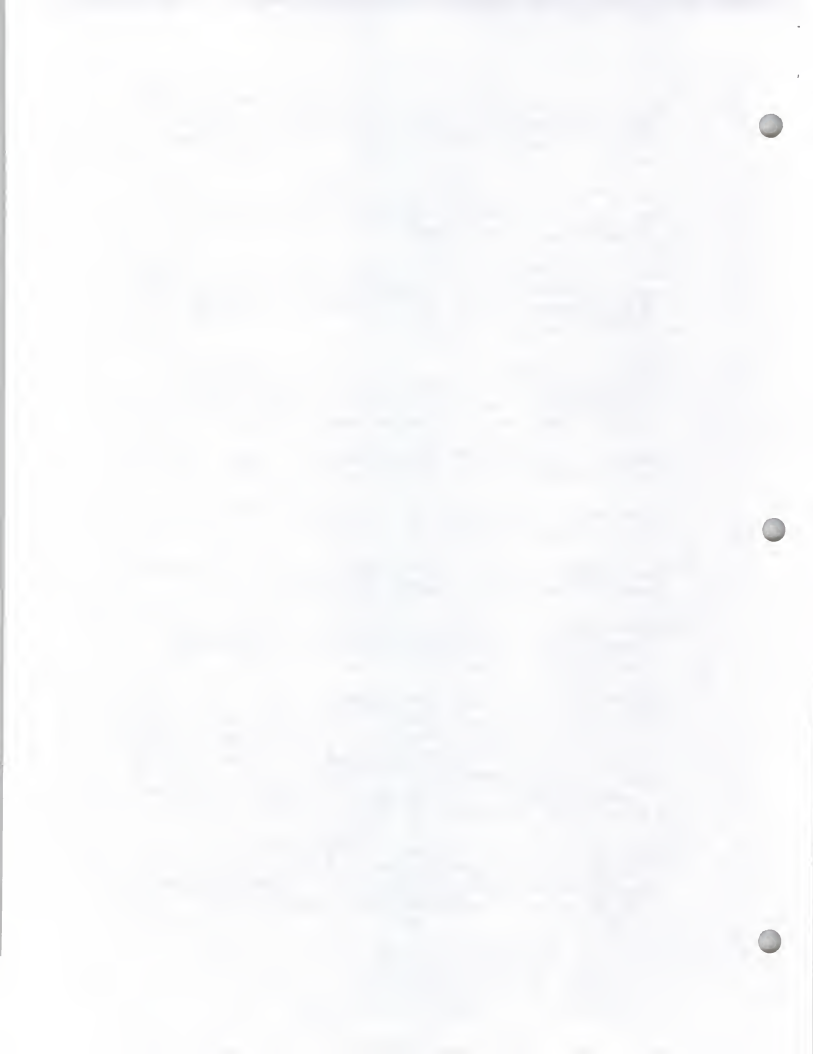
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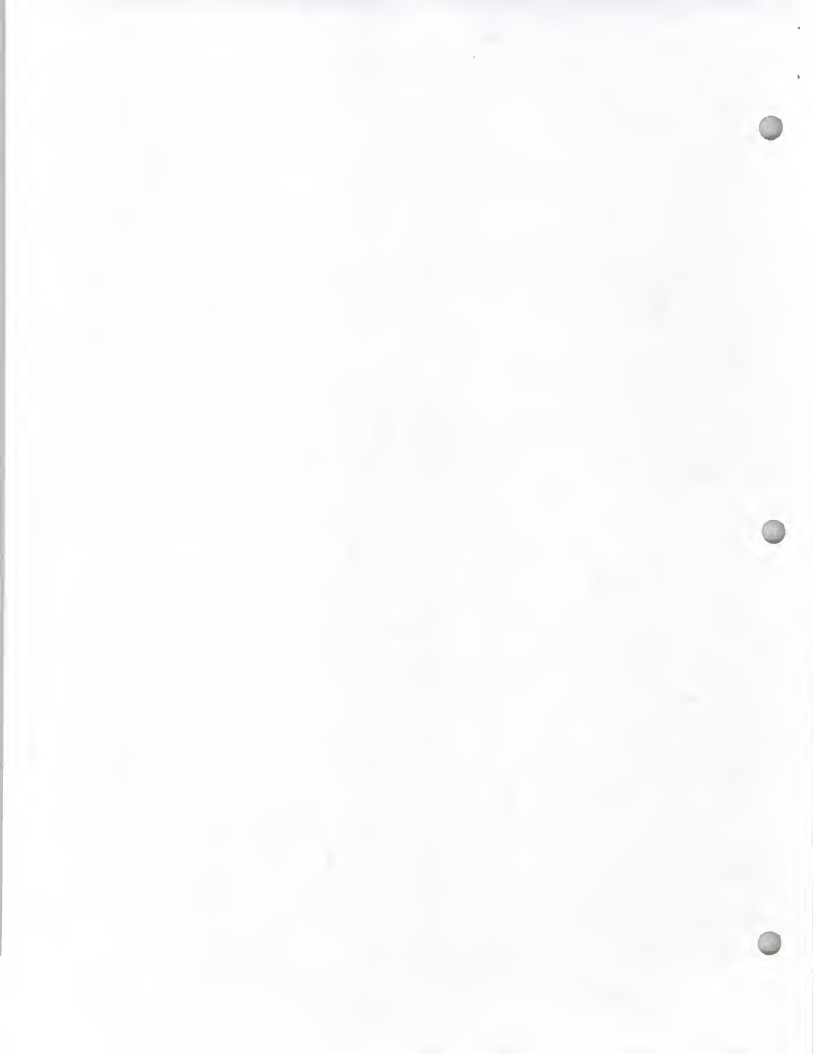
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APPENDIX A



MEMORANDUM OF UNDERSTANDING

between the

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS

and the

UNITED STATE DEPARTMENT OF AGRICULTURE

**FOREST SERVICE
HELENA NATIONAL FOREST
DEERLODGE NATIONAL FOREST**

**MEMORANDUM OF UNDERSTANDING (MOU)
BIGHORN SHEEP REINTRODUCTION
ELKHORN MOUNTAINS**

SEPTEMBER 1995



I. PREAMBLE

The Forest system lands in the Elkhorn Mountains are a designated "Wildlife Management Unit". These lands, combined with surrounding Bureau of Land Management (BLM) lands, are included in the "Elkhorn Cooperative Management Area" (ECMA). The ECMA management is guided by an earlier interagency (Forest Service, Bureau of Land Management, and Montana Department of Fish, Wildlife and Parks (FWP) Memorandum of Understanding (MOU) signed in July 1992 ("an agreement on working together"). These lands are managed under current Forest Land Management Plans and BLM Resource Management Plans.

This MOU, regarding the reintroduction of bighorn sheep on Forest System lands, tiers to the overall MOU for the Elkhorn Mountains.

The Helena National Forest (HNF) and the Headwaters Resource Area (BLM) completed a NEPA analysis (Environmental Assessment) on the reintroduction of bighorn sheep and issued a Decision Notice in March 1995. The Decision was jointly signed by the BLM and HNF. The decision was appealed through the Forest Service regulations. The Regional Forester issued his decision in July 1995. His decision was the NEPA was not required for this reintroduction effort and that the State of Montana had jurisdiction over the reintroduction of a native species. The Regional Forester directed the Helena National Forest to "vacate" the Decision and the appeals were dismissed. The Regional Forester indicated that a MOU was the appropriate agreement between the State and the Forest Service relative to this reintroduction.

II. PURPOSE

This MOU establishes the principles under which bighorn sheep would be reintroduced on National Forest system lands in the Elkhorn Mountains. Although the proposed reintroduction affects only the Helena National Forest, the sheep may spend a portion of the year on the Deerlodge National Forest as well. The reintroduction site is on lower Indian Creek and lower Crow Creek on the Townsend Ranger District, HNF, on the east side of the Elkhorn Mountains near Townsend, Montana. Therefore, this MOU involves both Forests.

III. ROLES AND RESPONSIBILITIES

The Elkhorn Unit Managers and Elkhorn Implementation Group are responsible for implementing the terms of this agreement. Transplanting and monitoring will be coordinated between the Elkhorn Coordinator, Townsend, and the FWP Area Biologist, Townsend. Issues involving private landowners will be coordinated between the District Rangers and FWP Wildlife Manager, Region 3.

IV. THE STATE AGREES TO:

Montana Department of Fish, Wildlife and Parks agrees to transplant sheep in lower Indian and Crow Creek drainages contingent on approval by the FWP Commission on the Helena National Forest beginning as early as the winter of 1995/96. Habitat will be provided to sustain a maximum of 125 sheep on each winter range. All parties agree to monitor vegetation for the purpose of more accurately determining winter range carrying capacity.

V. THE FOREST SERVICE AGREES TO:

In the spirit of cooperation, the Helena and Deerlodge National Forest will work with FWP to resolve any unforeseen effects on adjacent private lands. All parties agree to work with private landowners to minimize or eliminate any impacts on private landowners.

VI. BOTH PARTIES MUTUALLY AGREE TO:

A. TERMINATION. Either party/parties, in writing, may terminate the instrument in whole, or in part, at any time before the date of expiration.

B. PARTICIPATION IN SIMILAR ACTIVITIES. This instrument in no way restricts the Forest Service or the Cooperator(s) from participating in similar activities with other public or private agencies, organizations, and individuals.

C. RESTRICTION FOR DELEGATES. Pursuant to Section 22, Title 41, United States Code, no member of, or Delegate to, Congress shall be admitted to any share or part of this instrument, or any benefits that may arise therefrom.

add
RC
Des
D. COMPLETION DATE. This instrument is executed as of the last date shown below and expires on October 1, 1995, at which time it will be subject to review, renewal, or expiration.
2000,

E. PRINCIPAL CONTACTS. The principal contacts for this instrument are:

Joel Peterson
Fish, Wildlife and Parks
1400 South 19th
Bozeman, MT 59715
Phone (406) 994-4042

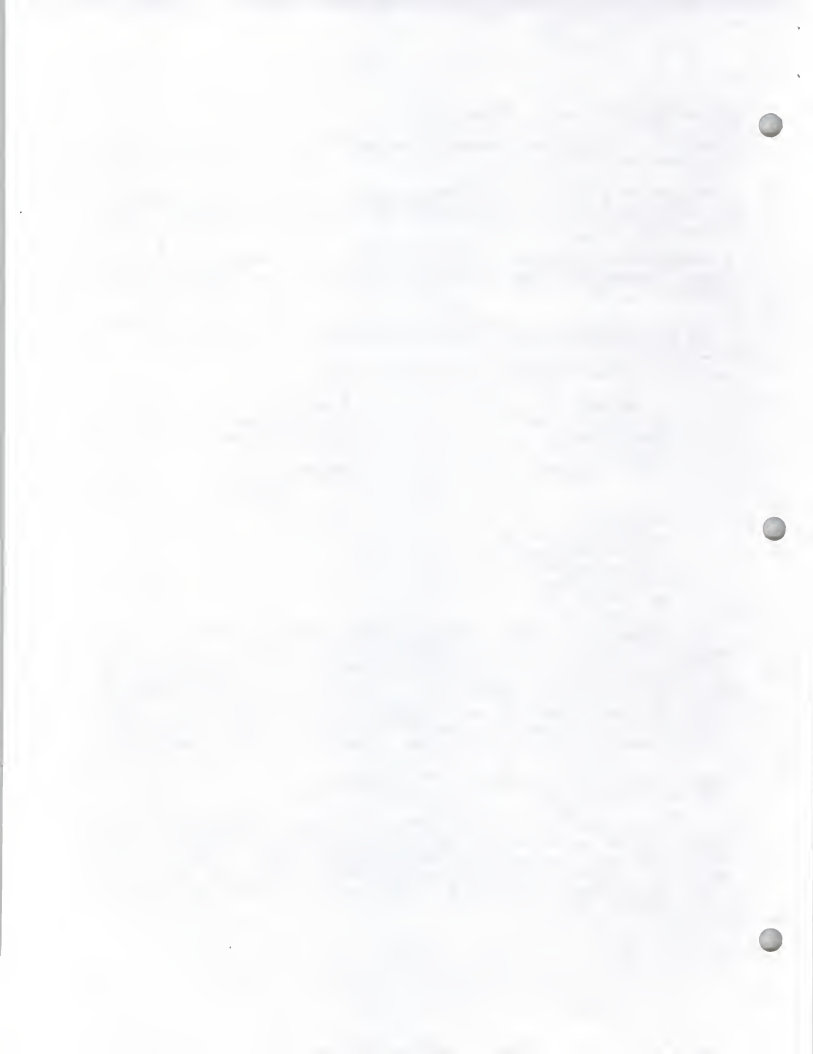
Grant Godbolt
Deerlodge National Forest
Jefferson Ranger District
Box 7
Whitehall, MT 59759
Phone (406) 287-3223

Jodie Canfield
Helena National Forest
Townsend Ranger District
415 South Front Street
Townsend, MT 59644
Phone (406) 266-3425

F. NON-FUND OBLIGATING DOCUMENT. This instrument is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between the parties to this instrument will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This instrument does not provide such authority. Specifically, this instrument does not establish authority for a noncompetitive award to the cooperator of any contract or other agreement. Any contract or agreement for training or other services must fully comply with all applicable requirements for competition.

G. MODIFICATION. Modifications within the scope of this instrument shall be made by the issuance of a bi-laterally executed modification prior to any changes being performed.

H. All parties agree to manage bighorn sheep in a manner that minimizes any negative impacts to existing land uses, specifically livestock grazing, existing mining operations, and motorized recreation in the Crow Creek drainage. Should an unanticipated conflict occur with a mining operation, every effort will be made to work with mining companies for a solution that meets everyone's needs. In the event of any conflict with a livestock operation, the agencies will likewise work with the permittee/landowner to arrive at a mutually agreeable solution.



VII. APPROVAL OF THE MOU

9/20/95

DATE



STEPHEN L. LEWIS, SUPERVISOR

REGION 3

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS



THOMAS CLIFFORD, FOREST SUPERVISOR

HELENA NATIONAL FOREST

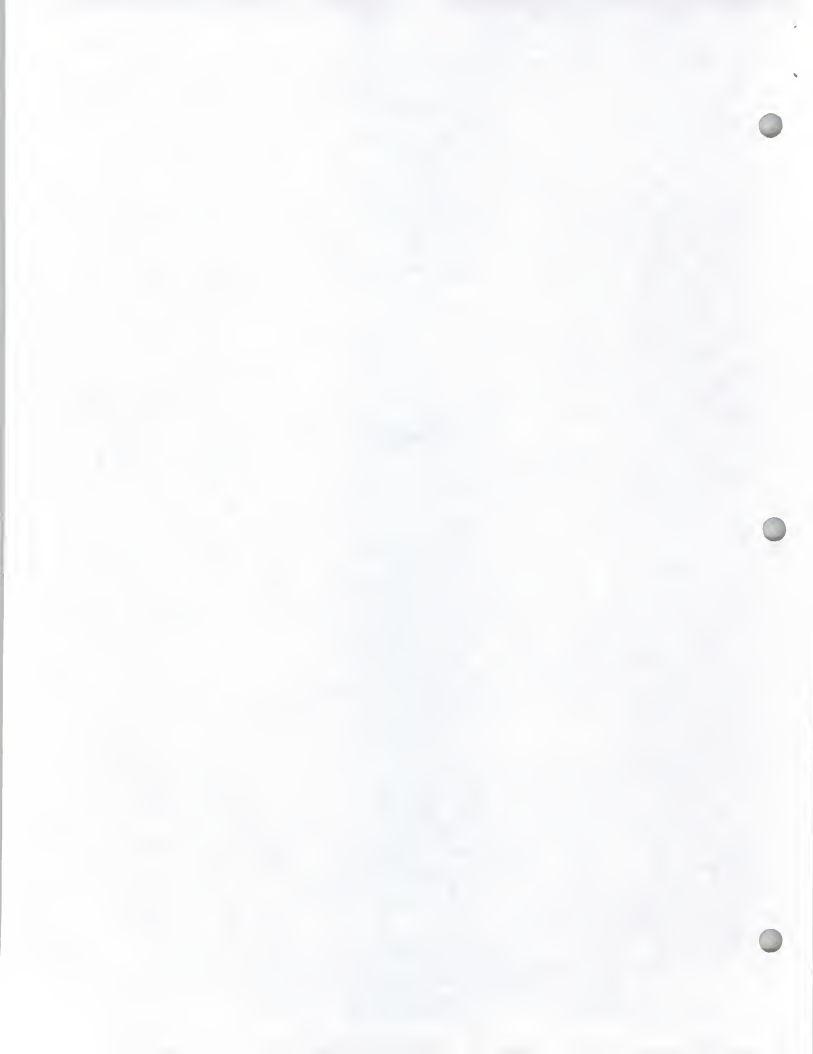


DEBBIE AUSTIN, FOREST SUPERVISOR

DEERLODGE NATIONAL FOREST

copy

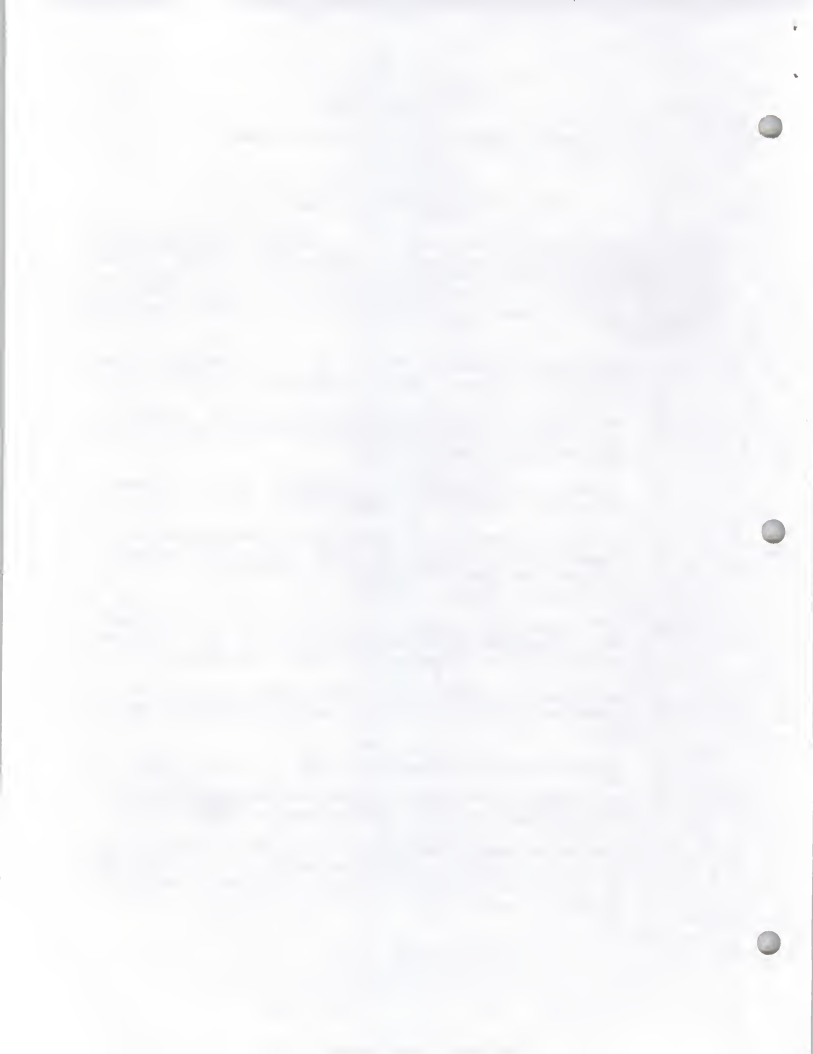
APPENDIX B



MONTANA FISH, WILDLIFE & PARKS COMMISSION
JUNE 2, 1995
FINAL
BIGHORN SHEEP TRANSPLANT GUIDELINES
FOR NEWLY ESTABLISHED HERDS

To reduce the possibility of disease outbreaks in newly established transplanted bighorn sheep herds, and to provide assurance to landowners that the presence of newly established bighorn sheep will not be used by the Department and/or Commission to restrict existing land management, it is the policy of the Montana Fish, Wildlife & Parks Commission pursuant to Montana's Importation, Introduction, and Transplantation of Wildlife statute (87-5-701-721, MCA) to:

- 1) give preference to those sites which are not in close proximity to domestic sheep or are separated by physical barriers to reduce potential of interaction.
- 2) consider only transplants to those sites with a majority of public land and/or legal or landowner granted access to assure that hunting and trapping can be used to control herd size in the future.
- 3) approve transplants only with the written approval of the private landowners in the area where the herd is expected to establish.
- 4) approve transplants only where the department has determined that there is sufficient winter and other seasonal range capacity, considering current livestock use and potential for competition with other wild ungulates, to support the anticipated population size.
- 5) utilize hunting and trapping for relocation to control herd size within previously established levels unless mutual agreement to allow an increase can be reached by affected landowners within the herd's primary range.
- 6) take actions to prevent the establishment of bighorn sheep populations on private lands other than the predicted area unless the affected landowner(s) approve.
- 7) approve transplants only in cases where there are significant public benefits.
- 8) assume the risk of transplant failure, holding no private landowner or public grazing allotment lessee responsible without proof of negligence.
- 9) not seek modifications, without the consent of the affected livestock owner, to state or federal allotments or other management plans in the unlikely event that bighorn sheep from a transplanted herd establish in another area utilized by domestic livestock.



DECISION NOTICE
REINTRODUCTION OF BIGHORN SHEEP INTO
THE ELKHORN MOUNTAINS, MONTANA

PROPOSAL

The Proposed Action is to reintroduce Rocky Mountain bighorn sheep (*Ovis canadensis canadensis*) in the Elkhorn Mountains of south-central Montana. The Elkhorn Mountains occupy approximately 245,000 acres in a rough triangle between Helena, Townsend, and Boulder. About 160,000 acres is managed by the USFS encompassing most of the mountain range. This portion of the Elkhorns is found on the Jefferson District of the Deerlodge National Forest, and the Helena and Townsend Districts of the Helena National Forest. Approximately 85,000 acres is managed by the BLM. The remaining lands are a combination of private and Department of State Lands properties. None of the above agencies have any management authority over private lands. All public lands are managed cooperatively by the USFS, BLM, and FWP under a Memorandum of Understanding (MOU, 1992) as the Elkhorn Cooperative Management Area (ECMA).

Bighorn sheep were native to the Elkhorn Mountains and probably became extinct sometime in the early part of this century (Vore 1993). Suitable year-round habitat for bighorns remains and has been identified (Vore 1993).

FWP initially identified 8 potential winter range release sites during an earlier feasibility study (Vore 1993). Of the 8 identified sites, the Indian Creek and Crow Creek release sites were selected based on habitat suitability, nearness to domestic sheep operations and other potentially conflicting land uses, land ownership, overlap with existing wildlife habitats, juxtaposition to summer range, and estimated carrying capacity.

Bighorn sheep may be released as early as the winter of 1995-96. The first two releases, 20 to 40 sheep for each release, would be made during consecutive winters on the Indian Creek winter range. Two additional releases would be made during following winters on the Crow Creek winter range. Timing of release may be dependent on sheep availability and winter access.

The purpose of this project is to reintroduce bighorn sheep to the Elkhorn Mountains. The project is needed to help restore the area's natural biodiversity, and would be a public benefit by providing watchable and potentially huntable wildlife.

It is our intent to establish populations on two winter ranges that do not exceed 250 sheep. Vegetation monitoring may indicate either a lower or higher carrying capacity than was estimated in this analysis. If a higher carrying capacity is indicated, and the analysis determines additional impacts may occur, an amendment to this EA will be initiated to determine if populations should be allowed to expand.

MONTANA ENVIRONMENTAL POLICY ACT (MEPA) PROCESS

This proposal was presented in a draft Environmental Assessment (draft EA) produced in conjunction with Forest Service and Bureau of Land Management in compliance with the National Environmental Policy Act (NEPA). A joint Decision Notice, signed by the BLM and Forest Service was subsequently appealed by 2 separate parties. Through the Appeal review process at the Forest Service Region 1 office it was determined that the Forest Service did not have jurisdiction over the proposed reintroduction and therefore NEPA did not apply to this proposal and the Decision Notice was withdrawn. In a letter to the appellants, the Appeal Deciding Officer stated, "Furthermore, the State of Montana retains jurisdictional authority for the management of wildlife resources on National Forest System lands, and the Helena National Forest Supervisor cannot preclude the State from taking action nor is the Supervisor's authorization required for the State to pursue its management obligations. Because this decision is not subject to NEPA; and the Forest Supervisor's decision has been vacated, I am dismissing your Appeals pursuant to 36 CFR 215.15(a)(4)."

For the purpose and intent of complying with MEPA requirements the draft EA was produced in conjunction with the Forest Service and BLM. Public comments received on that draft as well as issues brought forth through the appeal process have been incorporated into a Final Environmental Assessment and this Decision Notice. Further revisions from the draft EA included removing items of federal jurisdiction and references tiered to federal management plans (i.e. Helena Forest Plan and Headwaters Resource Management Plan).

ISSUES, CONCERNS, PUBLIC INVOLVEMENT

The agencies involved in this proposal encouraged public participation in this project in several ways. Following a news release in the newspapers, radio stations and TV stations of nearby communities, 75 scoping documents were mailed to a variety of groups, individuals, and agency representatives.

Private landowners adjacent to the proposed release sites were contacted in person to inform them of the project and discuss possible concerns.

A total of 43 comments were returned and are located in the project file at FWP's office in Townsend. Comments were reviewed and summarized by the agencies and were used as a basis to identify significant issues.

Six issues were identified. These issues are described in detail in the Final EA, pages 6-7.

The draft EA for the Reintroduction of Bighorn Sheep and requests for comments on the document were mailed to agencies, organizations and those on the mailing lists in the project file. A public notice requesting comments on the document also appeared in the Helena Independent Record on October 2, 1994. Approximately 25 additional draft EA's were mailed or picked up in agency offices during the 30 day comment period. The



deadline for submitting comments was November 2, 1994.

Comments were received from 20 individuals and groups/corporations relative to the draft EA. Agency personnel contacted all parties who commented and offered to meet with them to discuss their comments. Meetings were held with 9 individuals/groups. The agencies met with several of the commentators twice between the end of the comment period and the drafting of the decision signed by the Forest Service and BLM. These meetings are documented as part of the Project File in Section D (#'s 20, 23, 25, 28).

Agency personnel held a final series of meetings with the 2 Appellants to discuss their appeals of the FS/BLM Decision Notice. Those meetings are also documented in the Project File. Not all of the objections to the FS/BLM Decision apply under MEPA since some objections concern Federal and not State issues or responsibilities. Objections and concerns raised in these appeals, and comments on the draft EA are itemized below along with FWP's responses.

GENERAL SUMMARY AND RESPONSE TO PUBLIC COMMENTS ON THE DRAFT EA

1. The Broadwater County Commissioners, Santa Fe Pacific Gold Corp., Continental Lime Inc., Pegasus Gold Corp., and an individual were concerned as to the possibility bighorn sheep would settle off of ranges predicted in the draft EA.

Based on the information we have and our best estimate, bighorn sheep will occupy predicted ranges as shown on page 4 of the Final EA. Winter range release sites were selected, in part, based on habitat suitability (i.e. open areas of low snow accumulation with available forage in proximity to rugged, rocky escape cover), juxtaposition to summer range, lack of significant overlap with other grazing ungulates, and carrying capacity (Final EA, page 1). In addition, the Indian Creek winter range has had 2 prescribed burns on land administered by the BLM; further enhancing its attractiveness to bighorn sheep. An important habitat requirement for keeping bighorns on summer range is the availability of succulent green forbs through late summer (M. Frisina pers. commun.). The abundance of moist parks along and at the head of major drainages in the predicted summer range should meet this need.

If released, we envision a core group of bighorn sheep will settle on the release winter range(s) for the remaining winter before seeking suitable summer range. Based on prior releases, it is also expected some individual bighorns will disperse shortly after release. These animals are either lost from the core group and die or eventually return to the core group (J. Peterson pers. commun.). Bighorns generally seek out precipitous, dry slopes for lambing and follow spring greenup to summer range (Lawson and Johnson 1982). Because bighorns are very traditional in their movements (Lawson and Johnson 1982), there is a high probability the core group will return to the release winter range the following winter. This scenario has occurred in past bighorn sheep releases at Sleeping Giant (G. Joslin pers. commun.), the Tendoy Mountains (J. Peterson pers. commun.), and lower Rock Creek (K. Alt pers. commun.). One exception, a bighorn release near Melrose resulted in a movement of approximately 10 miles from the release site before "settling" (M. Frisina pers. commun.). The Melrose release site, however, was part of an extensive



winter range habitat which allowed for these considerable movements.

In the Elkhorns, transplants are proposed during 2 consecutive years on each release site in an attempt to build up the core population and make up for any losses (Final EA, pages 8-9). From a management perspective, we are interested in the core group rather than randomly wandering individuals because the group, if successful, will ultimately develop into a sustainable population. Another important aspect in keeping bighorns on traditional range is to responsibly manage their numbers (K. Alt pers. commun.). If released, bighorn population management in the Elkhorns would be based on annual population surveys and winter range vegetation monitoring (Final EA, page 8). By closely managing bighorn numbers, the public range resources which are attractive to bighorn sheep will be maintained.

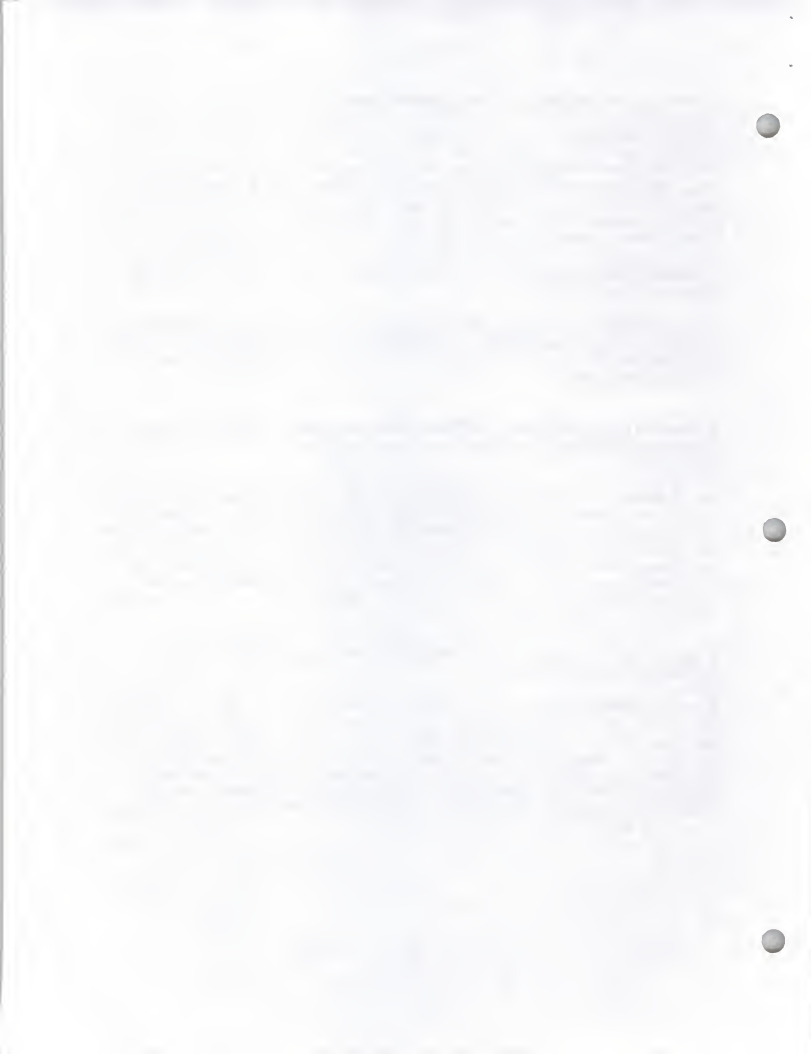
In addition, the Fish, Wildlife & Parks Commission adopted guidelines which provide assurances to landowners that "the presence of newly established bighorn sheep will not be used by the Department and/or Commission to restrict existing land management..." (Final EA, Appendix B).

2. Santa Fe Pacific Gold Corp., Continental Lime Inc., Pegasus Gold Corp., and an individual inquired why other winter and summer ranges were not shown or considered in the draft EA.

All predicted summer ranges are displayed on the project area map in the Final EA (page 4). As stated on page 1 of the Final EA, 8 potential winter ranges were identified during an early feasibility study. The only potential winter ranges displayed in the Final EA are those considered most suitable for releasing bighorns (see answer to comment #1.). Other winter ranges were dropped from consideration because of their proximity to domestic sheep operations or other conflicting land uses, in avoidance of private land, and/or overlap with existing wildlife habitats (Final EA, page 1).

3. Broadwater County Commissioners suggested there is no guarantee the goal of a huntable population would be met.

With any wildlife reintroduction project, there are many unknowns (Final EA, page 20). Based on the available habitat, we believe the Elkhorn Mountains can sustain a huntable population as described in the Final EA. Establishing a bighorn sheep population and providing recreational hunting are primary objectives of this project (Final EA, page 1). Most of the hunted bighorn sheep populations in Montana have been the result of transplanting. Two fairly recent bighorn sheep transplants which have resulted in populations well known for large rams include the Highland and Rock Creek populations.



4. An individual was concerned about potential health problems of bighorn sheep and how herd health would be monitored. Pegasus Gold Corp. questioned how mortalities would be evaluated.

Monthly relocation flights as well as annual aerial and ground surveys will be conducted (Final EA, page 8) to determine herd movements and population parameters (i.e. population size, sex ratios, age, production, etc.). Any bighorn sheep mortalities will be sent to the FWP lab to determine cause of death.

5. An individual questioned whether more transplant sites might be available within the Elkhorn region.

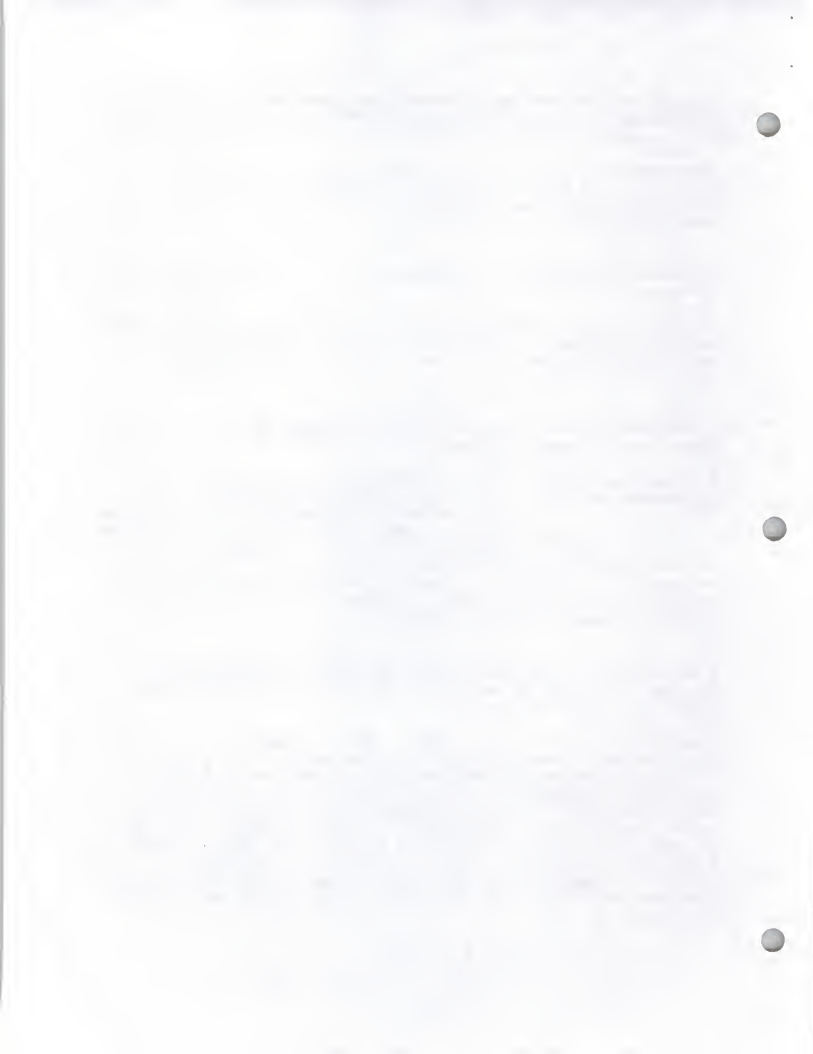
An earlier feasibility study (Vore 1993) described 8 potential winter range release sites in the Elkhorn range. Of those sites, the 2 proposed release sites in the Final EA were found to be the most suitable based on a series of criteria (Final EA, page 1). No further bighorn sheep transplants are proposed.

6. Santa Fe Pacific Gold Corp. questioned whether the EA was representative of others developed for similar projects in Montana.

This Final EA is the most comprehensive analysis for transplanting bighorns in Montana which has been prepared under guidelines of the Montana Environmental Policy Act (MEPA). Because this was a cooperative effort involving Montana Fish, Wildlife & Parks, U.S. Forest Service, and Bureau of Land Management, we believe an accurate assessment has been made of all foreseeable impacts of this bighorn sheep reintroduction project. This process has also involved extensive public input including direct contact with area landowners, public responses to newspaper notices and articles, comments from the 75 scoping letters which were sent out to the public (Final EA, page 5), and meetings with 9 individuals/groups who commented on the draft EA.

7. American Wildlands suggested minimum viable population size should have been addressed in the EA and a disclosure of frequency of capture and release to maintain genetic diversity should be displayed.

Minimum viable population size and genetic diversity are not addressed in the Final EA. Based on the number of sheep transplanted (Final EA, pages 9-10), other recent transplants of similar nature have been successful. Some transplants in the past were made with fewer animals. This may have been a contributing factor to their lack of success. There have been fairly recent sightings of single or small groups of bighorn sheep in the Elkhorn (Vore 1993) and Big Belt Mountains which apparently dispersed from other bighorn populations. Bighorn sheep apparently move through the area from time to time which could provide a source of genetic diversity to the gene pool. In addition, separate proposed bighorn sheep reintroduction projects located by Lewis and Clark Caverns and the Bridger Mountains, if implemented, may also provide an outside gene source.



8. American Wildlands suggested "the overall cost of the reintroduction program and its yearly monitoring and administration should be included in a net public benefit analysis."

The following is an estimate of costs associated with the Elkhorns Bighorn Sheep Reintroduction Project, Fiscal Year 96 through 2001

<u>FY 96</u>	<u>Cost</u>	<u>Work Days</u>
Radio transmitters for bighorn movement monitoring	1750	
Budget for relocation flights	3000	12 days
Sheep trapping/handling costs (helicopter & crew, disease tests, veterinarian costs, etc.)	12000	2 days
Trap and transplant crew	1000	2 days
Vegetation monitoring	600	5 days
subtotal	\$18,350	21 days

<u>FY 97</u>		
Radio transmitters for bighorn movement monitoring	1750	
Budget for relocation flights	3000	12 days
Sheep trapping/ handling cost	12000	2 days
Trap and transplant crew	1000	2 days
Vegetation monitoring	600	5 days
subtotal	\$18,350	21 days

<u>FY 98</u>		
Radio transmitters for bighorn movement monitoring	1750	
Budget for relocation flights	3000	12 days
Sheep trapping/ handling cost	12000	2 days
Trap and transplant crew	1000	2 days
Vegetation monitoring	600	5 days
subtotal	\$18,350	21 days

<u>FY 99</u>		
Radio transmitters for bighorn movement monitoring	1750	
Budget for relocation flights	3000	12 days
Sheep trapping/ handling cost	12000	2 days
Trap and transplant crew	1000	2 days
Vegetation monitoring	600	5 days
subtotal	\$18,350	21 days

<u>FY 2000</u>		
Budget for relocation flights	3000	12 days
Vegetation monitoring	600	5 days
subtotal	\$9,000	17 days

(continued)



Cost Analysis (continued)

FY 2001

Budget for relocation flights	3000	12 days
Vegetation monitoring	600	5 days
	<u>subtotal \$9,000</u>	<u>17 days</u>
Grand Totals	\$91,400	118 days

The potential benefits from this bighorn sheep reintroduction project include creating bighorn sheep viewing opportunities, bighorn sheep hunting opportunities, and aesthetic enrichment. The community may also be benefitted economically as a destination for wildlife viewers and hunters. Many of the benefits which may be derived as a result of this project are impossible to assess a dollar value.

9. The Montana Stockgrowers Association (MSGA) and the Montana Woolgrowers Association (MWGA) was concerned that FWP had not sufficiently analyzed the impact of this transplant on agricultural operations as required by Montana law.

This concern was apparently based on statute 87-5-711 (1) which states:

"Except as otherwise provided, the importation for introduction or the transplantation or introduction of any wildlife is prohibited unless the commission determines, based upon scientific investigation and after public hearing, that a species of wildlife poses no threat of harm to native wildlife and plants or to agricultural production and that the transplantation or introduction of a species has significant public benefits."

It is our feeling the requirements of this statute have been met leading up to and including the environmental analysis process which has included: 1) an initial scientific feasibility study; 2) meetings with landowners adjacent to proposed release sites; 3) extensive public scoping prior to writing the draft EA; and 4) follow up meetings with all parties who commented on the draft EA. As has been shown in the Final EA, the possibility of this project resulting in negative impacts to agricultural production (i.e. livestock grazing and crop production) is remote. Specific population objectives for individual transplanted sheep populations are identified in the Final EA (Page 1). Population trends will be monitored annually and sheep movements will be tracked periodically throughout the year. The impact of sheep on vegetation will also be monitored through the use of permanent transects to ensure there is no negative impact on the range resource (Final EA, page 8). If, however, impacts would occur we feel confident they could be mitigated for through a variety of means (Final EA, page 27) including adjusting population objectives (Final EA, page 8).

An ability to control the population could prevent "an uncontrolled, naturally reproducing population of that species becoming established". The quoted phrase is part of the definition of "natural habitat" and, by use of the term in the definitions of "transplantation" and "introduction", is part of those definitions as well (see sections 87-5-



702 (3), (4), and (5)). Therefore, if the population can be controlled, then both the threat of harm to agricultural production can be controlled and the reintroduction of bighorn sheep may no longer, at least strictly speaking, be a transplantation as the term is used in section 87-5-711, MCA.

Significant public benefits resulting from the bighorn sheep reintroduction project include restoring the area's natural biodiversity and providing watchable and potentially huntable wildlife (Final EA, page 2).

10. Pegasus Gold Corp. suggested that "Increasing competition with other grazers, increasing numbers of predators, and minimal acreage of suitable escape cover may limit sheep numbers in both Indian Creek and Crow Creek drainages."

Criteria used for selecting winter range release sites included availability of escape cover and low grazing activity by livestock (Final EA, page 26) and other wildlife (Final EA, pages 22-23). In addition to other criteria, both proposed release sites were considered suitable in these respects.

11. Pegasus Gold Corp. questioned "how many attempts will be made to reintroduce bighorns if the initial attempts are unsuccessful?"

The action alternatives listed in the Final EA (page 9) state 4 or 2 releases will be made during consecutive years depending on which, if any, action alternative is selected. We feel the projected releases would be adequate for establishing a base population. No subsequent bighorn sheep transplants are being considered or proposed.

12. Pegasus Gold Corporation inquired about other options besides hunting pressure to influence sheep migratory routes and range locations.

Prescribed burning may be used to improve forage conditions on bighorn winter ranges and attract use by bighorns (Final EA, page 10). Current and proposed travel management (Final EA, page 17) may also help influence where bighorns select winter ranges.

13. An individual suggested not all of the issues were brought out in the draft EA ("Comment #" refers to where comments from this letter are responded to in this document).

An extensive scoping process was utilized to develop the issues and concerns regarding the bighorn sheep reintroduction project (Final EA, page 5). A total of 40 comments were returned and are located in the project file at the FWP Townsend Field Office. From these comments and internal scoping by the 3 managing agencies involved, 6 issues were developed which addressed major concerns (Final EA, pages 6-7). A compilation of public scoping concerns were listed after each issue in the Final EA (page 6-7). We feel these 6



issues were an accurate representation that encompass the responses received through the scoping process. The concerns submitted in this individual's letter are addressed individually under the proper headings of this document and include: 1) changes in motorized travel restrictions will bring about other changes in use (Comment #29); 2) livestock and bighorn compatibility studies were not fully addressed, specifically disease transmission from cattle to bighorn sheep (Comment #26); 3) current domestic sheep grazing would be eliminated if bighorns are reintroduced (Comment #41); and 4) introducing another big game species would cloud the big game issues in the Elkhorns (Comment #21).

14. An individual suggested the lower number in projected carrying capacities be used as population targets for the bighorn population. The individual also suggested a cap be placed on the maximum number of bighorns in each area.

Population objectives are as outlined in the Final EA (page 9). The final bighorn sheep carrying capacity will be based on winter range vegetation monitoring (Final EA, page 8) and/or private land conflicts. High quality range conditions will keep public habitats attractive to bighorns and will help maintain a healthy bighorn sheep herd.

15. Pegasus Gold Corp. suggested the source of bighorn sheep for transplanting should be considered; specifically, whether the bighorns are habituated to human activity and what migratory traits they might have.

Bighorn sheep may be transplanted from 2 or more different areas (e.g. Thompson Falls, Wildhorse Island, etc.). Which population used as a transplant source will depend on a number of factors including time of trapping, availability of animals, where and how many additional releases are scheduled, weather, etc. If an action alternative is selected, there is no way of knowing which population would be used as a source of bighorn sheep for this project.

16. Pegasus Gold Corp. questioned what sources would be used to fund the reintroduction project and post-release monitoring.

Initial work by the 3 managing agencies on a feasibility study and draft EA was funded out of annual budgets. If an action alternative is selected, money (administered by FWP) from auctioning off one bighorn sheep hunting permit annually, would fund most of the actual transplanting costs. Post-release monitoring will be funded through a challenge cost share agreement between BLM and FWP. For more budget information see the response to Comment #8.



17. Pegasus Gold Corp. suggested "monitoring will have to include the impacts of disease, interactions with other big game species, predation, impacts from and to human activities and other agents of change."

Through radio telemetry monitoring and annual surveys, information on these various aspects will become available. Any significant impacts, such as these, would be documented and if necessary or feasible would be addressed through future mitigation.

OTHER WILDLIFE

18. Santa Fe Pacific Gold Corp. and Pegasus Gold Corp. suggested the draft EA should include overlays of wildlife distributions to determine overlap of seasonal ranges. Continental Lime Inc. and Pegasus Gold Corp. was concerned the draft EA neglected to mention the Limestone Hills mule deer winter range, which borders the proposed Indian Creek bighorn winter range.

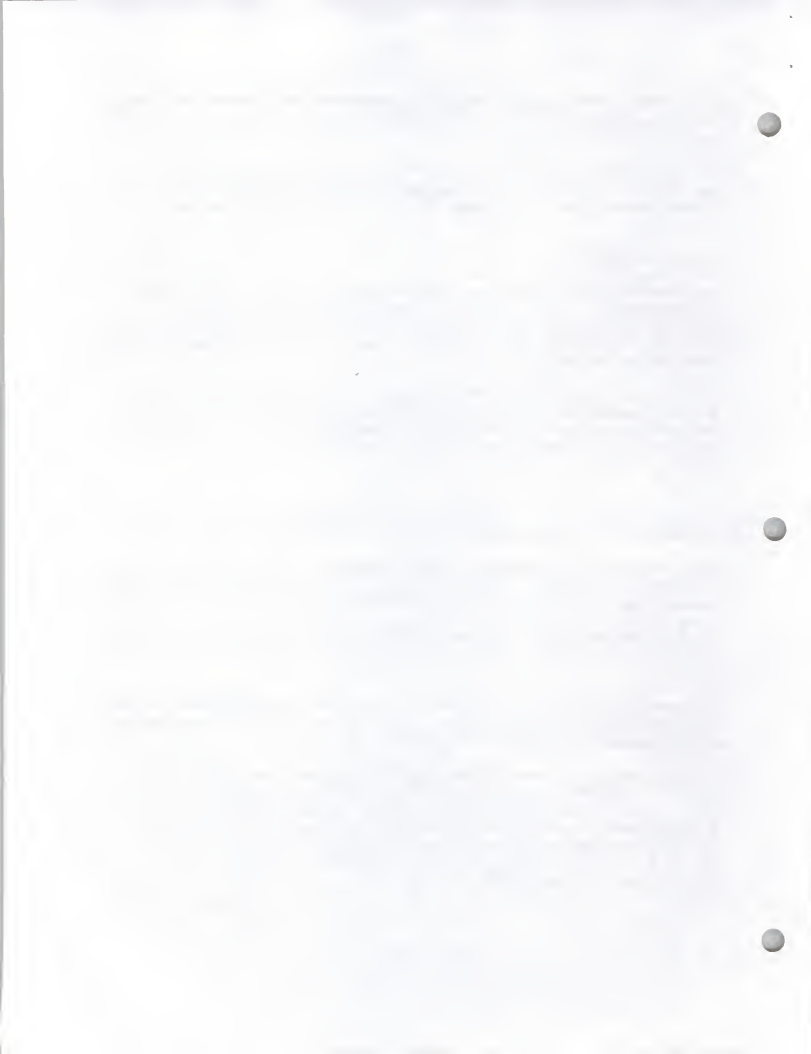
Winter range release sites were selected in part to avoid overlap with existing wildlife habitats (Final EA, page 1). The Limestone Hills core mule deer winter range was considered when selecting the proposed Indian Creek release site (Final EA, page 14). No significant overlap of sheep and mule deer core winter ranges was predicted (Final EA, page 23).

19. Continental Lime Inc. and Pegasus Gold Corp. suggested the impacts of the sheep introduction on the elk population was given a cursory discussion.

Historically, the greatest potential for conflict between bighorn sheep and elk has been competition for winter forage. However, with regard to this project, most of the predicted bighorn winter range is in excellent condition (Final EA, page 13) and use of these areas by existing elk herds has been light (Final EA, page 23). Based on past surveys and a recent elk study in the Elkhorn Mountains (DeSimone and Vore 1992), predicted bighorn winter ranges our outside of traditional core elk winter ranges.

20. Continental Lime Inc. and Pegasus Gold Corp. was concerned no mention was made of potentially sensitive plant communities or plant species such as cushion townsendia (*Townsendia spathulata*), which is found in the Limestone Hills.

Impacts to threatened and endangered wildlife and plant species as listed by the U.S. Fish and Wildlife Service and sensitive plant and wildlife species as listed by the U.S. Forest Service and Bureau of Land Management were considered in the Final EA (pages 13-14, 15-16, 21-22, and 23-24). Prior to a plant inventory in the Limestone Hills, *Cushion townsendia* was considered a "watch" species. However, when the plant was found to be very prevalent, the species was considered not to be a plant of concern (Department of State Lands 1993).



21. An individual felt introducing another big game species would cloud the big game issues in the Elkhorns.

The Final EA identifies what impacts reintroducing bighorn sheep may have on existing big game resources in the ECMA (Final EA, pages 22-23). Management direction from the Helena National Forest Plan and the Headwaters Resource Management Plan both support wildlife values in the ECMA as well as reintroduction of native species such as bighorn sheep.

22. Pegasus Gold Corp. questioned whether wolves or grizzly bears might be proposed for reintroduction in the Elkhorns some time in the future.

Because of their threatened and endangered status, both of these species are under the jurisdiction of the U.S. Fish and Wildlife Service. Regarding wolves, the Elkhorns are presently in a "Nonessential Experimental Population Area" which includes most of Idaho and approximately the southern 2/3 of Montana. The Elkhorn Mountains are not part of either of the 2 wolf recovery areas (Final EA, page 15) which includes the area in and around Yellowstone National Park and USFS lands in central Idaho. The Elkhorns are also not part of a grizzly bear recovery area (Final EA page 15). Neither the U.S. Fish and Wildlife Service nor FWP are considering reintroducing either of these species into the Elkhorns. However, either of these species could potentially disperse into new habitats which may include the Elkhorn Mountains.

DISEASE

23. MSGA and MWGA felt bighorns should be disease tested prior to any release and suggested any animals which are found to have problems should not be released or should be clearly documented.

Tests for a variety of diseases and disease organisms, including *Pasteurella* spp., will be conducted on blood and throat swab samples from each captured animal (Final EA, page 8). Captured animals will be held the minimum time necessary for transport from capture to release site to reduce stress mortality. Disease test results will not be available in this short time frame but all test results will be documented (Final EA, page 8). In addition, each transplanted sheep will be individually marked as follows: adult sheep will have either a neckband with unique markings or a radio collar as well as 2 ear tags and lambs will have 2 ear tags. If an active infection were detected, the option would be available to dispatch an individual bighorn if it was deemed necessary.

24. MSGA and MWGA felt the possibility of transmitting disease such as *Pasteurella* between bighorn sheep and elk should be addressed.

After pasturing elk and deer which were carriers of *P. haemolytica* with bighorn sheep for 8 months, Foreyt (1992) found all sheep remained healthy. Similar tests with domestic sheep usually resulted in the death of bighorn sheep (Foreyt and Jessup 1982). Deer and



elk are apparently not important in the causation of pneumonia in bighorn sheep. Likewise, deer and elk are not nearly as sensitive to damage from *P. haemolytica* as are bighorn sheep.

25. An individual was concerned the bighorn project would negatively impact present sheep raising practices and questioned whether there are provisions for reimbursing the domestic sheep producers should it be proven bighorn sheep carried a disease to domestic sheep.

In our opinion, the likelihood of bighorn sheep transmitting disease to domestic sheep is remote. Based on 25 cases including 4 controlled experiments, domestic sheep rarely (if ever) suffer ill effects because of coming into contact with bighorn sheep (Technical Staff of the Desert Bighorn Council 1990). In addition, upon capture, each bighorn sheep will be inspected for visible signs of poor health and will be given antibiotics to reduce the possibility of infection as well as ivermectine for controlling parasites (Final EA, page 8) (also see response to Comment #24). Bighorn sheep are, however, susceptible to disease organisms carried by domestic sheep presumably because bighorns have not co-evolved with many of those disease organisms (Technical Staff of the Desert Bighorn Council 1990). Winter range release sites were selected in avoidance of domestic sheep grazing allotments.

26. An individual suggested the draft EA did not fully address livestock and bighorn compatibility studies, specifically disease transmission from cattle to bighorn sheep.

To the best of our knowledge, past reports of cattle transmitting disease to bighorns have been based on opinion and speculation. There has been no scientifically proven evidence which demonstrates such a disease transmission could occur. Because of this, it was not addressed as a concern in the Final EA.

27. Broadwater County Commissioners wrote "an unresolved concern of the County Commissioners is based on Issue 2 of the [Draft] EA, which suggests domestic sheep operations [would] be held accountable when the transmission of disease infects the bighorn sheep population."

One of the selection criteria for a winter range release site was avoidance of domestic sheep operations (Final EA, page 1). We believe the distance and rough topography, which isolates the existing domestic sheep operations from proposed winter range release sites, is sufficient to protect against disease transmission to bighorn sheep (Final EA, page 26). If such a disease transfer would occur, it is doubtful domestic sheep operations would be held accountable. The FWP commission adopted bighorn sheep transplant guidelines which specifically state FWP will "assume the risk of transplant failure, holding no private landowner or public grazing allotment lessee responsible without proof of negligence." (see Final EA, Appendix B). That would not, however, preclude the managing agencies from negotiating future mitigative actions.



Furthermore, a review of court decisions back to the early 1960's, suggests existing domestic sheep allotments administered by the BLM have not been negatively impacted by administrative decisions, as related to the occurrence of bighorn sheep (L. Rau pers. commun.). Two court decisions which did consider the protection of bighorn sheep involved requests to convert cattle grazing allotments to domestic sheep. Neither of these conversions were allowed because the allotments overlapped with bighorn sheep range. A third court decision allowed BLM to move a cattle allotment boundary which reduced the allotment size by approximately 5%. An interstate highway was designated as the new boundary which, in effect, prohibited cattle from interacting with bighorn sheep on nearby mountain foothills. Summaries of these three court cases are located in the Project File, FWP Townsend Field Office.

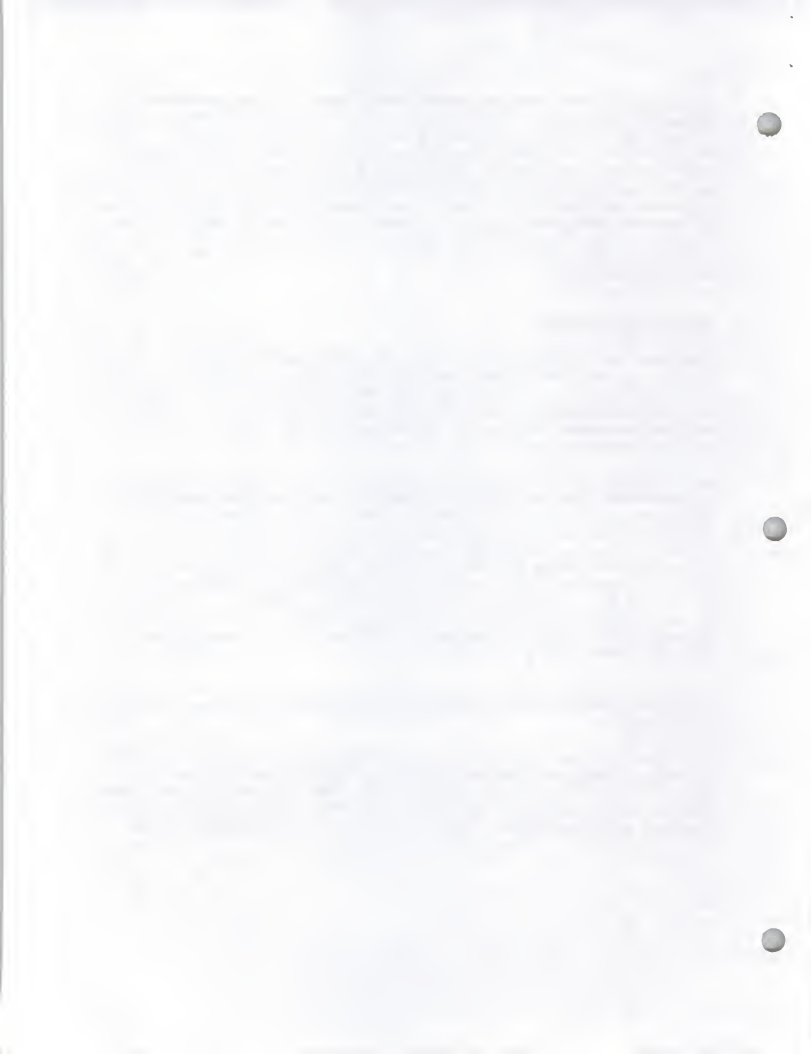
RESOURCE ACTIVITIES

28. Broadwater County Commissioners, Santa Fe Pacific Gold Corp., Continental Lime Inc., and Pegasus Gold Corp. were concerned whether the draft EA adequately addressed impacts the bighorn sheep reintroduction project might have on present mining operations and potential future developments. They would like assurances that property rights, including patented and unpatented mining claims, and potential future developments would not be restricted as a result of the bighorn reintroduction project.

It is our feeling, any mitigative measures required for the protection of wildlife species which currently occur in the ECMA (i.e. elk and mule deer) would most likely suffice also for bighorn sheep. As stated in the Final EA on page 25, "The presence of bighorns on the ECMA are not predicted to solely limit activities presently occurring on the ECMA....bighorn sheep are probably less sensitive to activities such as mining than other big game species occurring in the area." Because of this, we did not feel the need to specify restrictive management strategies. At the same time, we cannot provide assurances that bighorn sheep will not somehow impact present or future resource activities in the ECMA. If conflicts with bighorn sheep would occur, the agencies are willing to work with any affected private enterprise, as described in the agency MOU, Final EA, Appendix A (Page 32).

29. An individual was concerned changes in motorized travel restrictions will bring other changes in use.

The travel plan revision analysis being conducted by the BLM and USFS with FWP as a cooperator was referenced a number of times in the Final EA (pages 6, 25, and 28). Impacts to wildlife resources, such as deer, elk, and proposed bighorn sheep are addressed in a separate travel plan EA by the BLM and USFS. The decision that will be made on travel plan revisions is a federal action and is outside the scope of this MEPA analysis.



30. An individual felt there should be methods which assure bighorns would not trespass onto private land.

It is entirely possible bighorn sheep, if released, may use private land. However, when selecting winter range release sites, privately owned land was avoided (Final EA, page 1) and habitat suitability was an important selection criteria. In addition, prescribed burning and current/proposed travel management in the Elkhorns may enhance existing habitat, reducing the likelihood of bighorn sheep occupying private land.

31. An individual expressed concern about bighorns eating winter food supplements put out for domestic sheep in the Limestone Hills.

Supplemental feedings are occurring well away from predicted bighorn winter ranges (Final EA, page 26). In the unlikely event such a scenario would occur, a number of options are available for correcting the problem (Final EA, page 27).

32. Santa Fe Pacific Gold Corp. suggested "the issue of what are the potential areas of effects is not well described" in the draft EA.

Chapter III of the Final EA describes the affected environment in detail. A map is also included in the Final EA (page 4) which provides general boundaries of predicted bighorn winter and summer ranges. We feel the affected environment has been sufficiently described.

33. Santa Fe Pacific Gold Corp. and Pegasus Gold Corp. felt travel plan restrictions based upon bighorn sheep reintroduction should have been incorporated into the draft EA.

Travel plan issues are being addressed in a separate NEPA analysis. Travel restrictions are outside the scope of this MEPA EA.

34. Continental Lime Inc. and Pegasus Gold Corp. questioned what the agencies would do to compensate private entities affected by the bighorn transplant.

FWP and the other managing agencies are willing to work with any private entity to mitigate or resolve conflicts which may arise as a result of releasing bighorn sheep into the Elkhorn Mountains. As part of this analysis, the managing agencies have communicated directly with private parties which may be affected by this project. These communications have been documented and are located in the Project File. The MOU between FWP and USFS (Final EA, Appendix A) and recently adopted guidelines for transplanting bighorn sheep (Final EA, Appendix B) further express the willingness of the agencies to work with parties affected by this transplant to avoid impacts.



35. Continental Lime Inc. wrote "The alternative of how to protect existing private land, mining operations, grazing leases or any other resource developments is not discussed" and suggested changing the forest management plan to protect existing operations and developments.

The Forest Plan guidelines are outside the scope of this MEPA process. The USFS has expressed a willingness to work with FWP and affected parties, should conflicts arise (Final EA, Appendix A).

36. Continental Lime was concerned bighorn sheep would cause depredation problems on reclamation sites and may pose safety hazards to haul trucks.

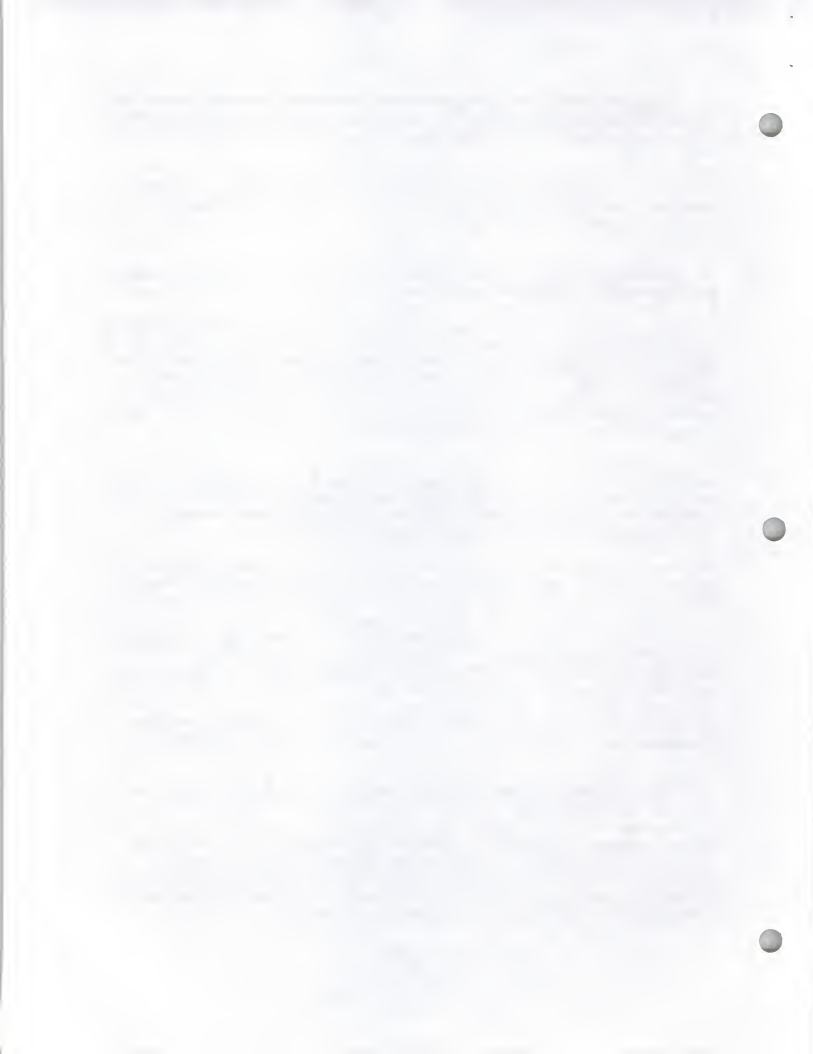
There is a potential for bighorn sheep to depredate reclamation plantings. Presently, elk and deer occur over all of the predicted bighorn sheep habitats (Final EA, page 14). Methods used to inhibit elk and deer from occupying reclamation sites would most likely address problems which may be caused by bighorn sheep. Haul truck safety hazards posed by bighorn sheep would also apply to other big game species in the area. Other bighorn herds closely associated with mining operations, such as the Melrose population, have co-existed in the absence of much conflict (Final EA, page 25).

37. MSGA and MWGA felt all affected grazing allotments should be identified and the area producers should be assured the bighorn transplant will not affect livestock grazing permits in any manner in the future. They were also concerned with wording in the Forest Plan regarding livestock and occupied bighorn sheep range.

The Final EA identifies which grazing allotments overlap with potential bighorn range (Final EA, page 18). Based on habitat preferences of bighorn sheep, the majority of areas predicted to be occupied by bighorns are designated as secondary range due to steep slopes and/or lack of water developments (Final EA, page 18). Because domestic livestock prefer gentle slopes and easy access to freestanding water, we anticipate no significant competition for forage (Final EA, page 26). For the purposes of this bighorn sheep reintroduction project, the Forest Plan standard regarding occupied bighorn habitat would apply after the bighorn sheep transplant has been determined successful and traditional home ranges have been identified through monitoring for 1 to 3 years (i.e. radio-telemetry and aerial surveys). The agencies will work cooperatively with grazing permittees to resolve any unanticipated conflicts with bighorn sheep (Final EA, Appendix A).

38. MSGA and MWGA suggested bighorn population targets should be set at levels which recognize current grazing uses.

Bighorn sheep population objectives will be based on what the public winter ranges support (Final EA, page 9). If a population becomes established, bighorn sheep population objectives would be reduced if grass utilization levels exceed 60% of the annual biomass (Final EA, page 8). In this manner, bighorn sheep population management will be responsive to range conditions and current grazing activities.



39. Pegasus Gold Corp. and Broadwater County Commissioners were concerned how the bighorn project might affect their possible plans for rerouting the canyon section of the Indian Creek Road.

Road management in the Elkhorns is a NEPA issue and outside the scope of this Final EA. Without specific road plans, it is difficult to know how the bighorn sheep project may affect future road developments. Although some road management would enhance the habitat for bighorn sheep, it is not essential to the success of this project. The managing agencies will need to evaluate road development plans as they become available.

40. Pegasus Gold Corp. questioned "what potential beneficial impact or mitigation plans could be developed to accommodate both private and public resource users in the Elkhorns?"

FWP in cooperation with the other managing agencies are willing to work with private interests to come up with "win-win" solutions. The bighorn sheep reintroduction project is an opportunity to demonstrate how government agencies, special interests, and private industry can work together to better manage the Elkhorn Mountains.

41. An individual predicted present domestic sheep grazing would be eliminated if bighorns are reintroduced.

Winter range release sites were selected to avoid domestic sheep operations in and adjacent to the ECMA (Final EA, page 1). In addition, Alternative C was developed, in part, to reduce the potential for conflicts with domestic sheep grazing. As stated in the Final EA (page 26) bighorns are not expected to interact with domestic sheep. The FWP Commission adopted guidelines for transplanting bighorn sheep (Final EA, Appendix B) which further protect existing land uses in the event conflicts with bighorn sheep occur.

42. An individual was concerned that cattle numbers rather than bighorn sheep numbers would be reduced in order to maintain 40% biomass on the ground if bighorn sheep become established.

As stated in the Final EA (page 8) "Population objectives for bighorn sheep will be adjusted if utilization levels [on winter range] are greater than 60% [annual vegetative biomass]." In addition, bighorns are expected to mainly occupy secondary range which currently receives little use by livestock (Final EA, page 18).

43. Regarding the draft EA, an individual stated livestock and humans "have been left out and all studies [are] slanted towards only wildlife concerns."

The purpose of an environmental analysis is to establish and address all significant concerns and impacts of a proposed project on the environment, which includes humans and current developments. As part of this analysis, an extensive scoping process was



conducted to ascertain what concerns the public and the 3 managing agencies may have regarding this project (Final EA, page 5). We feel the Final EA sufficiently addressed those concerns.

44. The Broadwater County Commissioners were concerned about increased travel through Indian Creek canyon in response to bighorn sheep viewing.

Bighorn sheep viewing may become popular if bighorn populations become established. Presently, traffic on the Indian Creek road peaks during the big game hunting season, which has been in place for numerous years. It is unlikely, the number of bighorn sheep viewers would ever approach this level of use.

45. Pegasus Gold Corp. suggested the type of traffic which may use roads in bighorn sheep habitat is important and contends mining traffic is less deleterious than recreational traffic.

We agree the type of traffic is an important aspect of the vehicle access issue. With any road development proposals or existing operations, the type of road use will be considered by the managing agencies if impacts on bighorn sheep are of concern.

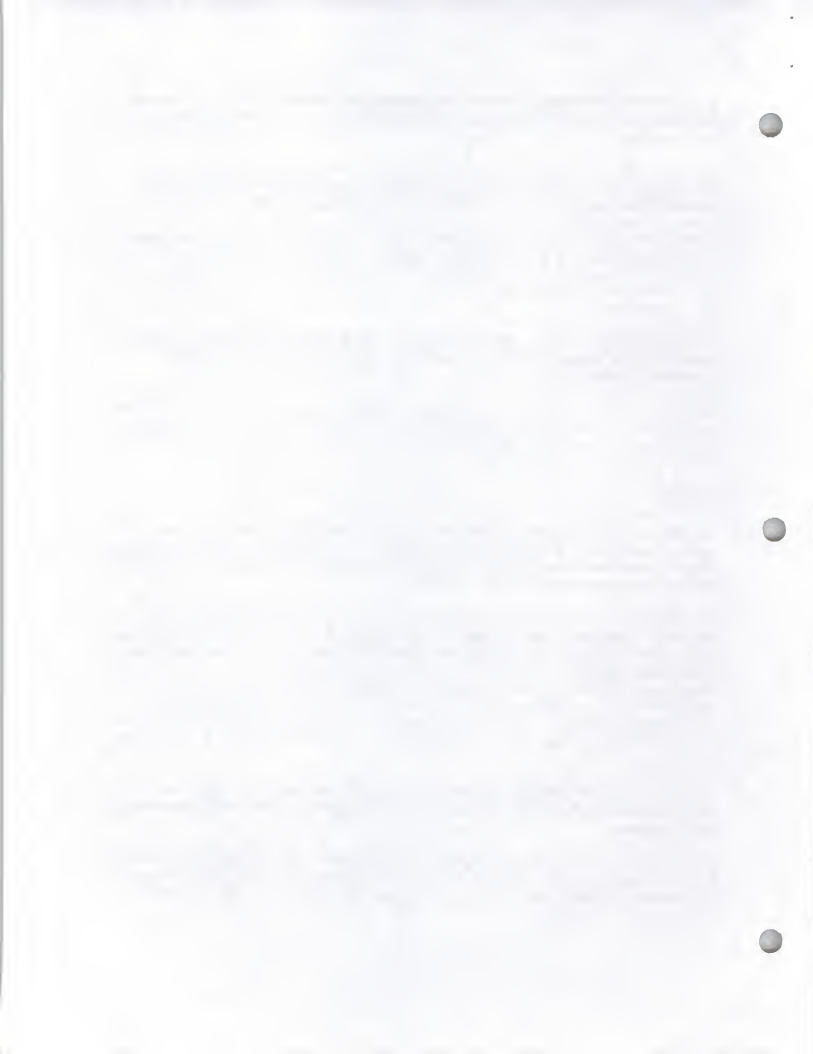
PRIVATE LAND

46. The Broadwater County Commissioners and an individual would like assurances the bighorn sheep reintroduction project would have no adverse conflicts with private land users. The commissioners were also concerned plans to compensate private agricultural landowners was not included in the draft EA.

There are no absolute assurances bighorn sheep will not conflict with private land operations. This project was designed to minimize the potential for conflicts on private land by selecting winter range release sites with high quality habitat while avoiding private land (Final EA, page 1). The managing agencies are willing to work with parties affected by this project (see MOU, Final EA, Appendix A). In addition to standard methods for dealing with depredation problems (Final EA, page 27) there may be a variety of additional creative ideas which may be used to resolve specific problems on a case by case basis. There are no other provisions for compensating private landowners.

47. The Broadwater County Commissioners were concerned that a plan was not addressed in the draft EA for managing bighorn sheep when they reach their projected population size.

Page 1 of the Final EA states "As bighorns become established, FWP biologists would determine both when their numbers should be managed and the feasibility of public hunting and/or translocation, as approved by the FWP Commission." Recreational hunting is one of the primary objectives of this project.



48. Continental Lime Inc. suggested the draft EA should have referred to bighorn summer and winter ranges when addressing private land, rather than using release sites as a point of reference.

Predicted summer and winter ranges are presented in the Final EA (page 4). It is difficult to put an exact border on predicted ranges when dealing with free-ranging animals. Thus, release sites were used as a point of reference when determining nearness to private land. Approximate acreages of private land which overlap with predicted summer and winter ranges are listed in the Final EA (Table 1, page 10). Patented claims surrounded by public land were not included in these acreage figures.

49. An individual expressed concerns that their land is already impacted by elk.

Concerns regarding elk were addressed in the Final EA (pages 14-15 and 22-23). Overlap with important wildlife habitats and private land were avoided when selecting winter range release sites (Final EA, page 1). That, in combination with maintaining high quality public habitats, will reduce the likelihood of bighorn sheep conflicts on private land.

50. An individual was concerned that no plan was set up in the draft EA which addressed specifically the problem of sheep entering private property.

See the Final EA, page 26 "4. Private Land". There is a potential for sheep to enter private land. The possibility of private land being occupied by bighorn sheep was discussed with landowners adjacent to the release sites (Final EA, page 27, documented in Project File). Most of these landowners had no strong opposition to reintroducing bighorns and some showed an interest and support for the project. The agencies will also work with new landowners as landownership changes in the future. As stated in the Final EA (page 27), if damages to private land resources would occur, a number of methods may be used to solve depredation problems. FWP and the USFS have agreed to an MOU which further addresses how the agencies will work cooperatively with private landowners, should conflicts occur (Final EA, Appendix A). In addition, the FWP Commission adopted guidelines which further protect existing land uses (Final EA, Appendix B).

51. Pegasus Gold Corp. questioned "what criteria will be used to adjudicate disputes between users of private property and management of public lands for wildlife resources?"

Criteria specifically for managing bighorn sheep are addressed in the FWP Commission's Bighorn Sheep Guidelines For Newly Established Herds (Final EA, Appendix B). In addition, FWP and the USFS have developed an MOU which defines agency roles in dealing with bighorn sheep conflicts, should they occur. If conflicts would occur, we would prefer maintaining open dialogue between the private party and managing agencies. Each case is unique and must be dealt with individually to tailor a solution.



52. An individual was concerned that bighorn viewers would cause increased trespass and off-road travel problems on private land, especially during winter months because many Forest Service roads are closed.

It is probably in the best interest of private landowners and bighorn sheep alike to develop a plan for dealing with bighorn sheep viewers if this became popular. Possible mitigative measures used to manage viewing activities might include strategic pull-offs along roadways for viewing bighorns and interpretive signs educating viewers on responsible viewing (Final EA, page 27).

53. An individual suggested prescribed burning for the benefit of bighorns would be a benefit for the range.

Prescribed burning would require a separate NEPA analysis. If this project is implemented, prescribed burning may be proposed in a separate analysis by the managing agencies (Final EA, page 10).

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**GENERAL SUMMARY AND RESPONSE TO OBJECTIONS MADE BY APPELLANTS
TO THE FS/BLM DECISION NOTICE**

A. Concern over impacts that the reintroduced sheep populations would have on existing wildlife, mining operations, grazing permits, riparian areas, and private land.

The Final EA pages 22-27 address impacts on wildlife, mining operations, grazing permits, riparian areas, and private land. The **GENERAL SUMMARY AND RESPONSE TO PUBLIC COMMENTS ON THE DRAFT EA** also address the above issues (see #1,2,9,10,12,18-19, 23-31, 34-43, and 45).

Of utmost concern in making this decision is the effect of bighorn sheep on private land and existing land uses, primarily grazing and mining. Part of the basis for our decision to pursue the reestablishment of bighorn sheep is the low potential for conflict with the above issues. If unanticipated conflict occurs, it is imperative that the agencies work cooperatively with the affected parties to ensure that sheep, private land and existing land uses can co-exist on the landscape. Specifically, appropriate agencies will work aggressively with private landowners to minimize or eliminate any impact of bighorn sheep on private property. In addition to options identified in the Final EA (page 27), we would explore any additional options the landowner proposes. Should an unanticipated conflict occur, every effort will be made to work with mining companies for a solution that meets everyone's needs. In the event of any conflict with a livestock operation, the appropriate agencies will likewise work with the permittee/landowner to arrive at a mutually agreeable solution. The willingness of the agencies to work with affected parties is further documented in an MOU between FWP and the USFS (Final EA, Appendix A) and guidelines adopted by the FWP Commission (Final EA, Appendix B, see especially #'s 8 and 9).

B. It is not appropriate to address road closures because of bighorn sheep introduction outside of the bighorn sheep draft EA.

Travel management on federally administered lands is outside the scope of MEPA and is being addressed in a separate NEPA analysis.

C. CRM does not trust the USFS or BLM to administer public lands under multiple use concepts, but seem determined to develop unofficial wilderness designations for our public lands.

Many of the big game species which occur in the Elkhorns, including elk, white-tailed deer, and mountain goats, have all been reintroduced to the area over time (FWP white paper, Project File). These transplants have resulted in established populations which are now available for viewing and hunting as part of the "multiple use" management philosophy of public land. Establishing a bighorn sheep population in the Elkhorns would provide similar "multiple use" benefits to the public.



D. The CRM committee believes proposed population control measures which can and will be utilized to accomplish the desired results must be spelled out in advance of implementation of the proposed Bighorn Sheep reintroduction.

It is our intent to reintroduce populations on two winter ranges that do not exceed 250 sheep (Final EA, page 9). Hunting and/or translocation will be used to manage sheep numbers to keep them at or below population objectives (Final EA, page 1).

E. The ability of FWP to control bighorn sheep populations is based upon the political reality of a sportsmen influenced commission.

For this transplant to go forward, the FWP Commission must approve the release of bighorn sheep. Their implementation does not extend beyond the parameters identified in this decision notice or the Final EA. Decisions of the FWP Commission are influenced by all concerns including those of sports persons and landowners. This transplant is subject to the bighorn sheep transplant guidelines adopted by the FWP Commission which provide further assurances of protection for private landowners and grazing interests (Final EA, Appendix B).

F. The Helena National Forest Supervisor lacks the authority to manage bighorn sheep located in the Deerlodge National Forest and the Deerlodge Forest Supervisor failed to analyze the effects of bighorn sheep reintroduction.

FWP does have the authority and intends to manage bighorn sheep numbers as described in the Final EA (pages 1-2).

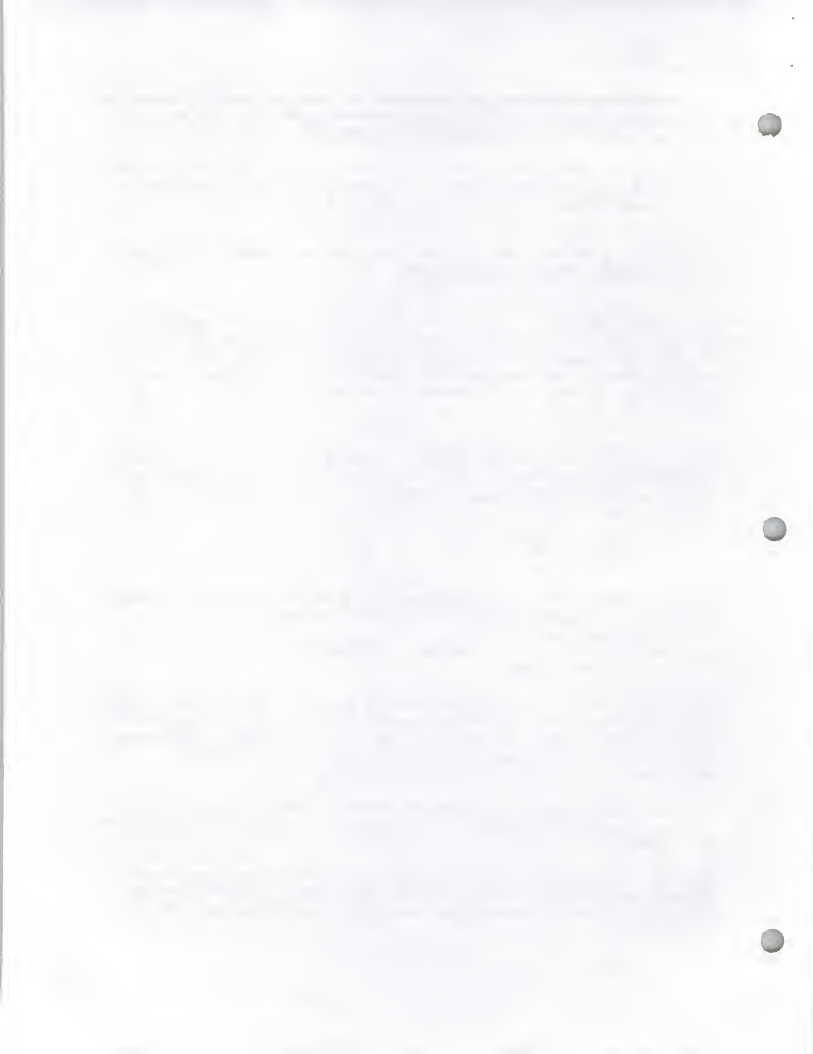
G. The draft EA contains conclusive statements and fails to take a hard look at the effects bighorn sheep reintroduction will have on the Elkhorn Mountains.

1. The draft EA does not contain "convincing" evidence that the effects of bighorn sheep are insignificant.

Reintroduction of bighorn sheep has occurred in several sites in Montana. Effects of this action will be similar to the effects of past, similar actions. In conducting this analysis, the agencies used the results of past actions as a frame of reference, and combined that insight with scientifically accepted analytical techniques and the best available information, to estimate effects of the proposal.

2. The draft EA ignores many impacts that could be caused by the presence of bighorn sheep in the Elkhorn Mountains and fails to analyze other possible release sites.

The summary of impacts are documented in the Final EA, Chapter IV. The proposed action was developed based on the "Feasibility Analysis Concerning the Reintroduction of Bighorn Sheep in the Elkhorn Mountains, Montana" (Vore 1993). As part of this initial



analysis, a number of release sites were considered and evaluated. The Indian Creek and Crow Creek release sites were selected based on a series of criteria listed on page 1 of the Final EA. Additional release sites were not among the issues identified during public scoping.

3. The draft EA contains inadequate and often contradictory information on the range of bighorn sheep.

The predicted ranges for bighorn sheep are identified on page 11 of the Final EA. Comment #1 and our response in the GENERAL SUMMARY AND RESPONSE TO PUBLIC COMMENTS ON THE DRAFT EA discusses the potential for bighorn sheep to occupy ranges outside those identified in the Final EA.

If bighorns occupy habitat outside the ranges predicted in the Final EA, FWP, in cooperation with USFS and BLM, will evaluate whether these colonized areas are appropriate for bighorn sheep and work in a "cooperative spirit" with private landowners, grazing permittees, and mining companies, to determine an appropriate course of action that all parties can live with.

4. The draft EA provides justification for why reintroduction is permissible and falls short of the meaningful analysis that NEPA requires.

This Decision Notice (DN) and Final EA are written under MEPA. The Final EA, Project File, DN, and GENERAL SUMMARY AND RESPONSE TO PUBLIC COMMENTS ON THE DRAFT EA document the analysis and compliance with MEPA.

5. The Forest Supervisor refuses to describe conflicts with private land owners and other land users or predict the likelihood of their occurrence.

Because the decision regarding the release of bighorn sheep in the Elkhorn Mountains is a decision made by the State of Montana, it is the responsibility of the FWP Regional Supervisor to recommend implementation of this action, subject to approval by the FWP Commission.

The potential for conflicts and the likelihood of their occurrence is documented in the Final EA on pages 20-28. Documentation of meetings held with those who commented on the draft EA (Project File Documents D-20, D-23, D-25, and D-28) and the GENERAL SUMMARY AND RESPONSE TO PUBLIC COMMENTS ON THE DRAFT EA (comment #'s 1, 28, 35, 40, 46, 50, and 51) features our responses to similar comments.

H. The draft EA failed to examine a reasonable range of alternatives.

This project is tiered to a "Feasibility Analysis" (Project File document A-1) (Vore, March 1993). This analysis examined the feasibility of reintroducing bighorn sheep in the Elkhorn Mountains. It determined the potential winter range habitats mountain range-wide and evaluated the likely success of reestablishing bighorn sheep on each of them (pages 11-19). The Final EA (page 1) references this Feasibility Analysis, as the basis for



the Proposed Action. The "Scope of the Proposed Action" includes reintroduction of bighorn sheep to 2 potential winter range sites. Unlike some projects, this action does not lend itself to a variety of alternatives (i.e. bighorn sheep either will or will not be reintroduced in the Elkhorns).

Additional alternatives were considered in response to public comments on the initial scoping. The analysis featured the No Action alternative (B) and one other alternative (C) in response to issues generated by the public (Final EA, pages 8 and 9).

I. The EA failed to adequately discuss and disclose the cumulative effects of bighorn sheep reintroduction.

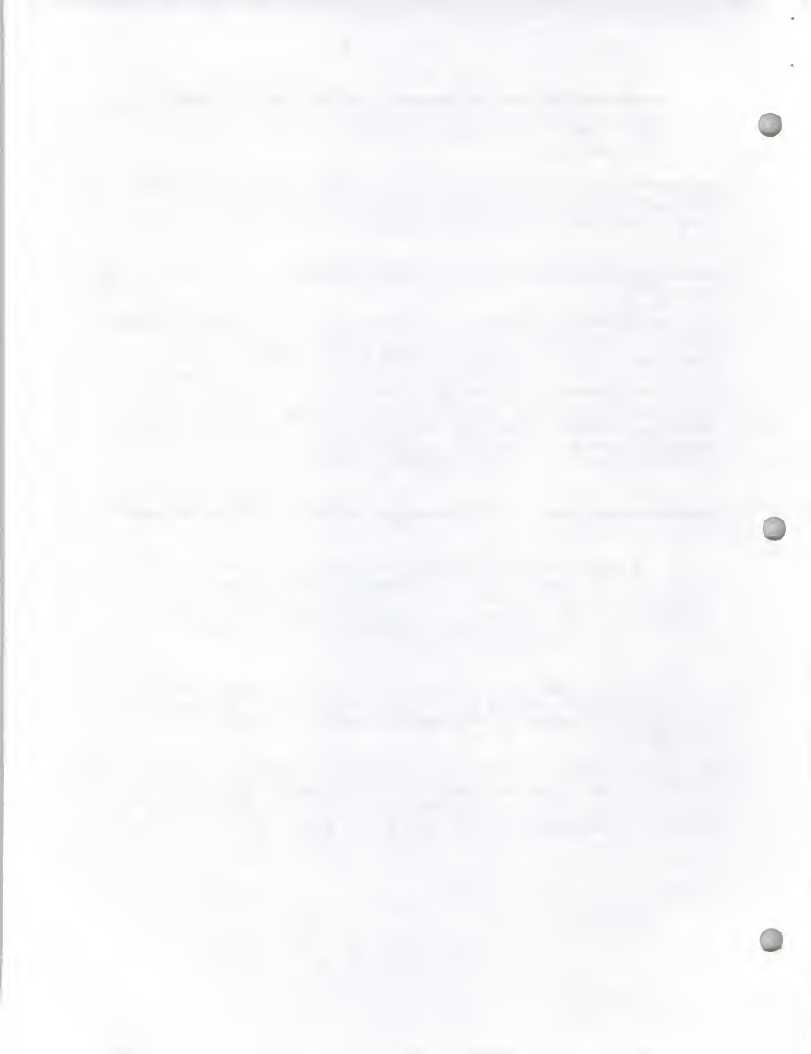
The agencies considered all reasonably foreseeable activities in the affected environment. Based on the discussion in the Final EA (page 28) and information identified during public review of the draft EA, we have concluded that there are no cumulatively significant impacts. The agencies considered the effects of bighorn sheep, as documented in chapter IV of the Final EA, in relation to future actions. They concluded that the primary effect of bighorn sheep on the environment is to remove vegetation (forage). In conjunction with improvements in the forage base (Crow Creek riparian and upland projects) and future mining activities (whose effects cannot be predicted until a plan of operations is developed), there are no significant cumulative effects.

J. Bighorn sheep reintroduction will have significant effects on all existing land users in the Elkhorn Mountains.

The effects of the alternatives on existing uses in the Elkhorns is documented in Chapter IV of the Final EA. The agencies discussed this issue in many of the meetings held prior to the decision (Project File, Documents D-20, D-25, D-28) and responded to related comments (see #'s 1, 28, 35, 40, 46, 50, and 51 of GENERAL SUMMARY AND RESPONSE TO PUBLIC COMMENTS ON THE DRAFT EA).

K. Conflicts are likely to arise once bighorns are established. Given the Forest Plan standard that resolves conflicts in favor of bighorn sheep in the event of successful reintroduction, the Supervisor must evaluate the likelihood and severity of these cumulative impacts.

The USFS and FWP have developed an MOU which will help guide agency roles in the event a conflict with bighorn sheep occurs (Final EA, Appendix A). We recognize the importance of existing land uses in the Elkhorn Mountains and will work cooperatively with the affected party to rectify the situation, should conflicts arise.



L. Travel restrictions in the proposed Elkhorn Travel Management Plan will influence the ranges of bighorn sheep.

Travel management in the Elkhorn Mountains is not a state action and is therefore outside the scope of MEPA. Travel management was identified as an issue in the public scoping process (Final EA, page 6) and will be addressed in a separate ongoing NEPA analysis by the USFS and BLM.

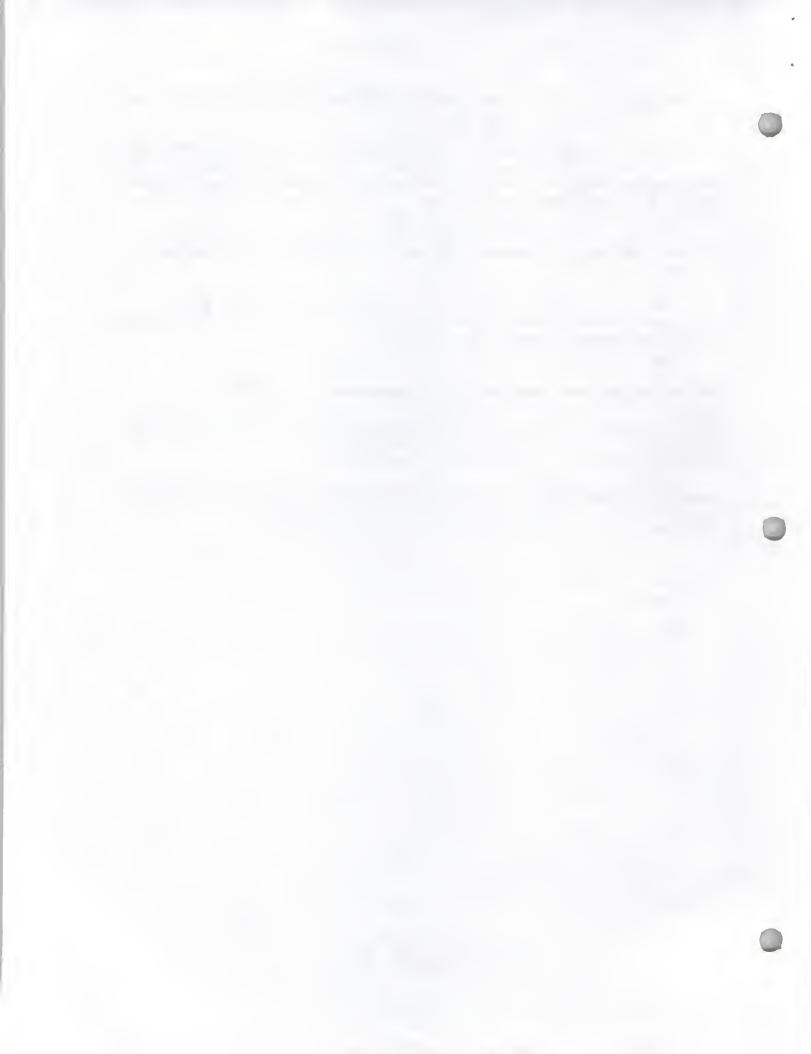
M. The Forest Service defers any examination of prescribed burning to separate future analysis.

Prescribed burning was an issue identified in scoping (Final EA, Issue 3, page 6-7). Because prescribed burning on USFS and BLM administered lands is not a state action, it is outside the scope of this MEPA analysis.

N. The draft EA failed to consider appropriate mitigation measures.

Mitigation measures are discussed on pages 8 of the Final EA. In addition, mitigative measures are discussed in the GENERAL SUMMARY AND RESPONSE TO PUBLIC COMMENTS ON THE DRAFT EA (see #'s 1 and 28).

The management of bighorn sheep will be accomplished in a manner that minimizes any negative impacts to existing land uses, specifically mining and livestock grazing in the area.



DECISION

Utilizing the Final EA and public comment, a decision must be rendered by FWP which addresses the concerns and issues identified for this proposed bighorn sheep introduction.

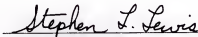
Public comments on the draft EA and appeals to the BLM/USFS Decision Notice were considered when drafting the Final EA and this Decision Notice. Additions and revisions to the draft EA included: 1) specific bighorn sheep population targets; 2) FWP Commission guidelines for transplanting bighorn sheep; and 3) an MOU between the USFS and FWP defining agency roles in managing bighorn sheep. These changes included in the Final EA were developed, in part, to provide additional protection to and alleviate concerns of existing land users.

We feel confident the Proposed Action (Alternative B), as presented in the Final EA has a low potential for conflicting with existing land uses in and around the Elkhorn Mountains. Throughout this Environmental Analysis process, FWP and the other managing agencies have portrayed a genuine willingness to work with private landowners, permittees, mining companies, and other users of the Elkhorn Mountains to mitigate conflicts with bighorn sheep, should they occur. If needed, the tools are in place to resolve potential problems.

FWP is not interested in using bighorn sheep as a tool for manipulating land management in the Elkhorn Mountains. Rather, we would prefer bighorn sheep and present/future industries co-exist, maximizing public benefits in the Elkhorn Mountains.

After review of this Final EA and the corresponding public input, it is my recommendation to move forward with the proposed transplant as described in Alternative B in the Final Environmental Assessment of the Reintroduction of Bighorn Sheep into the Elkhorn Mountains, Montana, subject to approval by the FWP Commission.

I furthermore find there to be no significant impacts associated with this project and conclude an Environmental Impact Statement is not needed.


Stephen L. Lewis
Regional Supervisor
Bozeman, MT
September 22, 1995

